

GRAIN & FEED JOURNALS

CONSOLIDATED

A Consolidation of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter.

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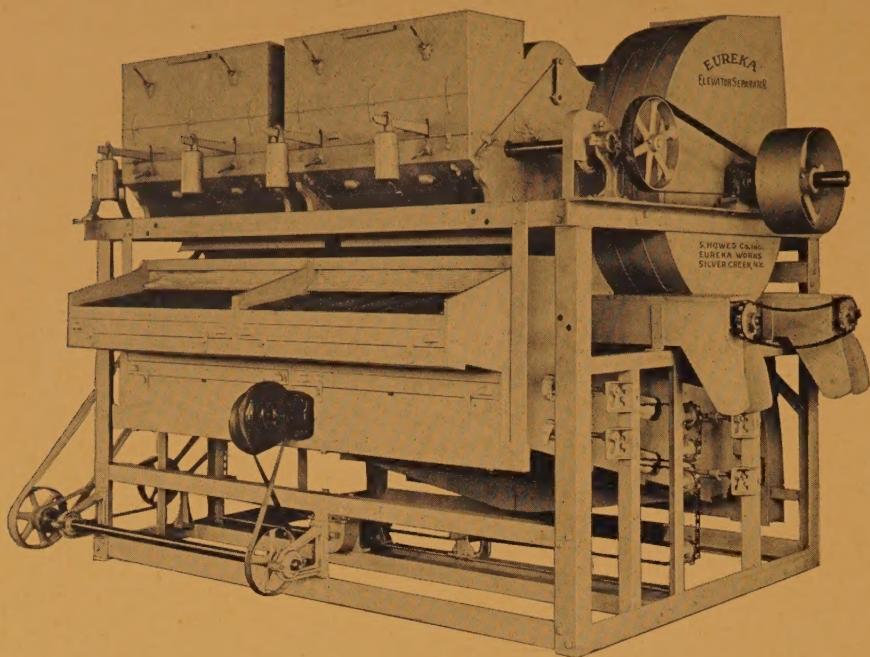
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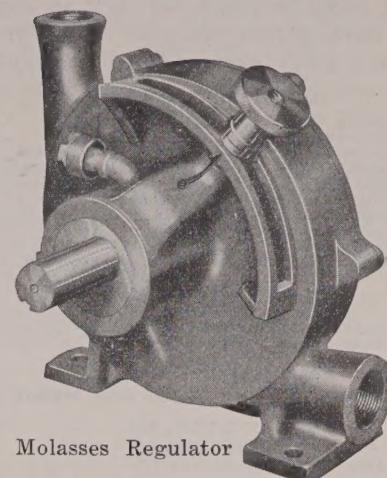
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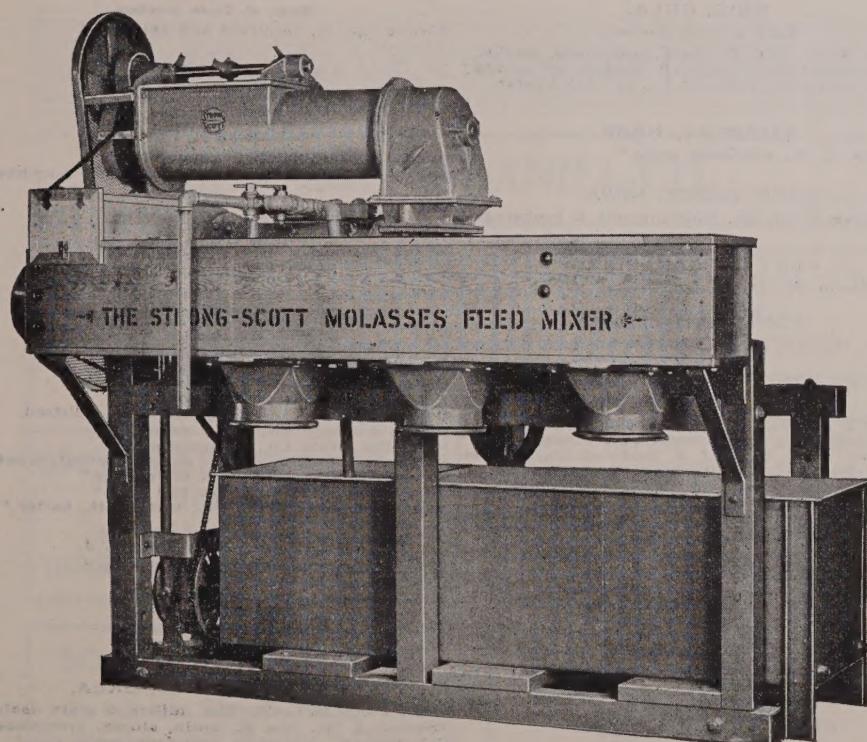
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(Continued on next page.)

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Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

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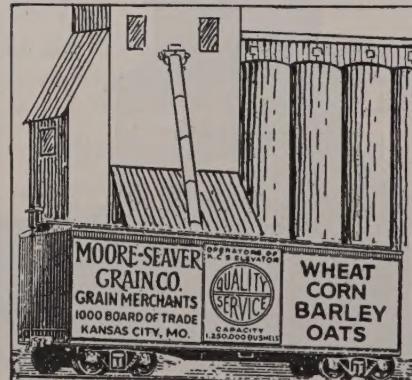
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without your paper.—G. H. McCarel.
Mgr., Newburg (Ia.) Elevator Co.

Corn Exchange
Members

BUFFALO

Corn Exchange
Members

J. G. MCKILLEN, INC.
RECEIVERS
Consignments a Specialty
BUFFALO NEW YORK

Send your consignments to
Seymour-Wood Co.
BUFFALO - - N. Y.

Lewis Grain Corp.
A good firm to consign to
Corn—Oats—Soft Wheat—Barley
BUFFALO NEW YORK

Every one in the grain business should
take the Journal. I am more than
pleased with it.—E. E. Hamersly, R. R.
No. 1, Terre Haute, Ind.

McCONNELL GRAIN CORPORATION
COMMISSION BUFFALO, N. Y.

BROKERAGE

Your Elevator's Wants Are Supplied in These Columns

Chamber of Commerce
Members

MINNEAPOLIS

Chamber of Commerce
Members

HALLET & CAREY CO.
Grain Merchants
Minneapolis Duluth Winnipeg

CARGILL ELEVATOR CO.
DULUTH, MINNEAPOLIS, MILWAUKEE
Specializing in
MILLING WHEAT
Get Our Quotations
Samples Furnished on Request
Represented by
CARGILL GRAIN CO. F. M. TURNBULL
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CEREAL GRADING COMPANY

CHAMBER OF COMMERCE, MINNEAPOLIS MINN.

GRAINWe Buy, Sell, Store and Ship all Kinds of Grain,
Choice Milling Wheat and Rye Selected by Expert Buyers. Own and Operate Elevator "L"

There is no better time to advertise than the present. Better start before your competitor. Write the JOURNAL today.

Fraser-Smith Co.
GRAIN
Minneapolis - Milwaukee
Cedar Rapids

CORN — OATS — BARLEY

Our large system of Terminals and country lines enables us to quote attractive prices and give prompt service on all classes of feed and milling grain.

THE VAN DUSEN HARRINGTON CO.
Grain Shippers and Receivers MINNEAPOLIS—DULUTH Business Founded 1882

Board of Trade
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**P. B.
and
C. C. Miles**
Established - 1875
Incorporated - 1910

Peoria, Illinois
Handling Grain on Commission Our Specialty

Turner-Hudnut Co.
Receivers **GRAIN** Shippers
42-47 Board of Trade

LUKE Grain
Co., Inc.
Solicits Your Peoria Business
Consign Your Corn to Us
PEORIA, ILLINOIS

Rumsey, Moore & Co.
Solicits Your Consignments
Board of Trade Peoria, Ill.

W. W. DEWEY & SONS
COMMISSION MERCHANTS
33-35 Board of Trade PEORIA, ILL.

MUELLER GRAIN COMPANY
(Incorporated)

Receivers and Shippers

Peoria, Ill.

Meade, Kan.—Have failed to receive the last issue of the Journal. Please mail it to us, as I certainly miss it.—W. S. Burns, Burns Grain Co.

150 AIR CHANGES FOR THE COST OF ONE "TURN!"

In Addition, the Pneumatic Process Saves the Losses Due to Breakage, Scouring, etc., and Preserves Quality as No Amount of "Turning" Can.

Write for Booklet

PNEUMATIC PROCESS CORPORATION609 MANUFACTURERS EXCHANGE
KANSAS CITY

LAWRENCEBURG, IND.

LANDRETH BUILDING
ST. LOUIS**Your Message**Let the Grain Dealers Journal your message bear
To progressive grain dealers everywhere.

3000 Bushels an Hour

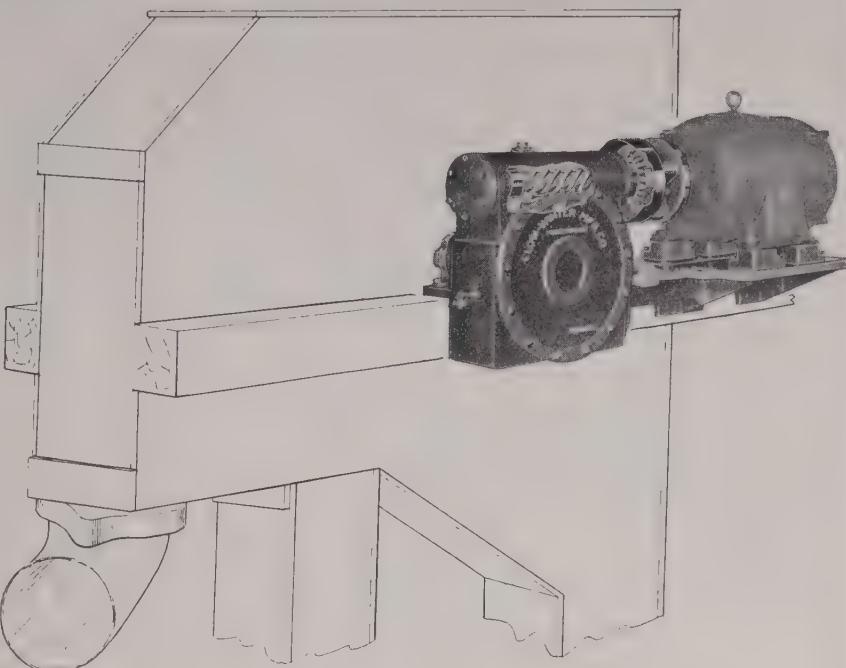
— ON —

85-Foot Centers

— WITH —

Only A 10-H.P. Motor
(1200 R.P.M.)

NOW it's nothing unusual for elevators everywhere to carry the same load—or even greater capacity—with only a half to two-thirds of the motor power they used before. Compared with the old chain - and - belt transmission, this saves easily from 25% to 50% on power. You can do equally well with

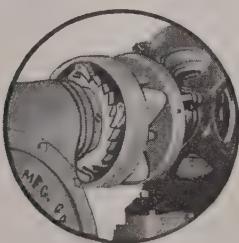


Winter's Universal Direct Connected Elevator Drive

— For 5 to 10 H.P. Motor —

**No Chains
to Break**
—
**No Belts
to Slip**

Directly connected to the head shaft, this drive eliminates counter shafts, chains, belts and sprockets. It transmits all of the power from the motor direct to the cup belt—no lost motion, no vibration. *Only two moving parts*, both running in oil. New improved automatic back-stop; positive in action, yet easily released for reverse operation. Winter's Drives are equipped throughout with TIMKEN Anti-Friction Roller Bearings. They are now in their fifth year of proven performance.



**All Equipped
With New
Improved
AUTOMATIC
BACKSTOP**

And Their Two Worthy Companions

Type X for 15 to 35 H.P. Type SX for 3 to 5 H.P.

Both Direct-Connected Gear Drives

To meet the growing demand for a light, compact, and serviceable head drive that will accommodate all the needs of the smaller elevator and feed mill, we now introduce the Type SX Direct-Connected Gear Drive. It is designed to operate from a 3-to-5 H.P. motor.

For TERMINAL or large country elevators, the new Type X Direct-Connected Gear Drive is designed to operate from a 15-to-35 H.P. motor, with the same increased capacity and power economy for which all WINTER'S Head Drives are noted.

WINTER'S DRIVES cut your minimum power costs even during light months, while in rush season they prevent delays and breakdowns.

CLOW-WINTER MANUFACTURING CO.

Minneapolis, Minn.

Winnipeg, Canada

*Mfrs. of Winter's Truck and Wagon Dump, Winter's Pneumatic Car
Puller and Winter's Full-Floating Boot Pulley equipped with
TIMKEN BEARINGS*

AVOID TRAMP MATERIAL IN GRINDING MILLS

A good pneumatic or electro-magnetic separator will reduce fires and accidents caused by the entrance of foreign material into grinders and prevent damage to the mill or its hammers, screens or plates.

Ask Your Insurance Office
for its recommendations

THE MILL MUTUALS

The Mutual Fire Prevention Bureau
230 East Ohio Street
CHICAGO, ILLINOIS

1902 TRI-STATE MUTUAL 1930 GRAIN DEALERS FIRE INSURANCE CO.

LUVERNE, MINN.
We write Fire & Windstorm Insurance covering Grain Elevators and contents, also Dwellings and Mercantile property.
(DIVIDENDS ANNUALLY FOR 28 YEARS)
E. A. Brown, Pres., Luverne, Minn. W. Z. Sharp, Treas., Sioux Falls, S. D.
W. J. Shanard, V.P., Bridgewater, S. D. E. H. Moreland, Secy., Luverne, Minn.



PLAY SAFE

Every winter many fires occur both as the result of defective heating equipment and lack of ordinary judgment in firing. Many injuries and deaths are caused by using kerosene to start fires in office stoves. Severe cold weather is now at hand; again check up on your heating equipment—be careful of your firing.

Don't let fire catch you unprepared.

GRAIN DEALERS NATIONAL MUTUAL FIRE INS. CO.

INDIANAPOLIS, INDIANA

J. J. Fitzgerald
Secretary-Treasurer
Indianapolis, Ind.

C. R. McCotter
Asst. Secy. and Western Mgr.
Omaha, Neb.

Place Your Name

and business before the progressive grain elevator men of the entire country by advertising in the Grain Dealers Journal. It reaches them twice each month.

Cracking Under the Strain

A BIG SURPRISE

awaited those who "listened in" to get the election results on November 4.

A big surprise awaits those who have never installed a

Zeleny Thermometer System

You couldn't imagine such a result as took place on November 4, and it is impossible to know the results of operating an elevator with bins equipped with the

Zeleny Thermometer System

until after you have operated with it.

Grain and mill men who lease storage space are or ought to be interested in storing grain in bins equipped with the

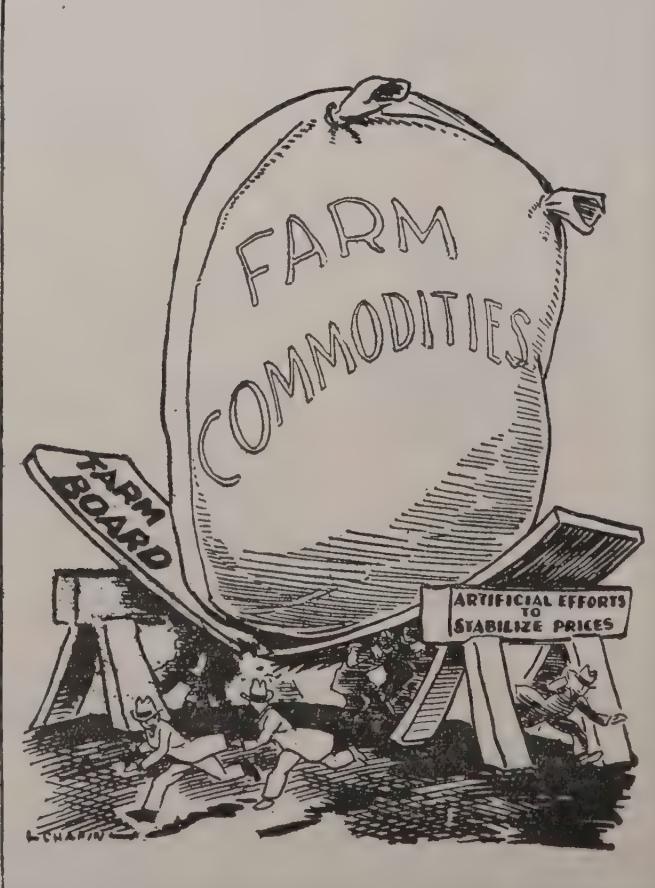
Zeleny Thermometer System

as it will save them money on storage charges because of eliminating unnecessary turning expense to determine the condition of the grain, and they can also obtain weekly reports from the elevator showing just what the condition is, and thereby be the judge as to when to and when not to turn their grain.

The Zeleny System will save you money. Those who have it will tell you how. Catalog No. 6 will tell you who has two or more installations of the system.

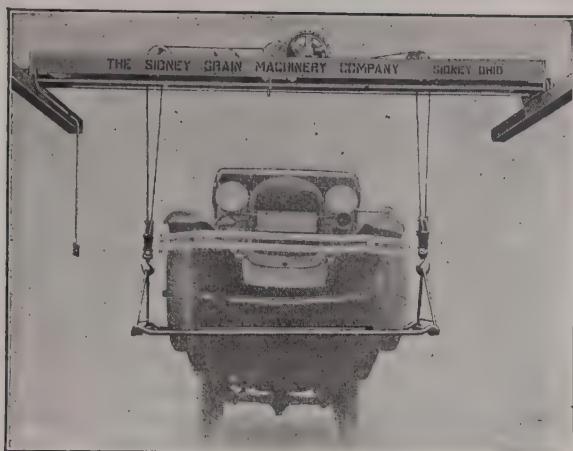
Zeleny Thermometer Co.

542 S. Dearborn St.
CHICAGO, ILL.



Philadelphia Ledger

SIDNEY ELECTRIC DUMP

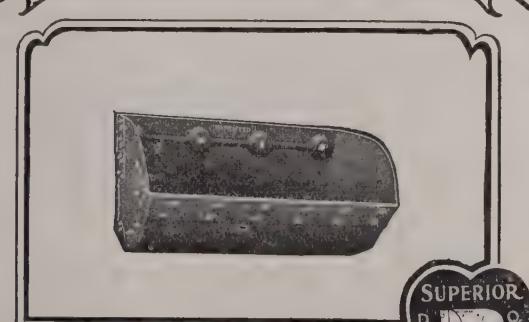


For dumping in one or more pits. For trucks and wagons of any length. **EASY TO INSTALL and ECONOMICAL**

Heavy all steel construction, enclosed steel bronze worm gear, 2-h.p. motor, Timken roller bearing, reversible switch, special cradle, best blocks and cable. Forty years experience building machinery for elevators and mills enables us to incorporate many new and improved features.

This is the last word in electric overhead dumps.

SIDNEY GRAIN MACHINERY CO.
SIDNEY, OHIO



YOU CAN HAVE IT

an increase in elevator efficiency that you didn't think possible, simply by adding Superior Elevator Cups to your belts.

Note these features:

Cups perfectly smooth inside.

No rivets to loosen or shear off.

Triple reinforcement on back and front edge.

Guaranteed larger capacity.

Perfect pick up and discharge at all speeds.

Write today for detailed information. Our Engineering Department is at your service.

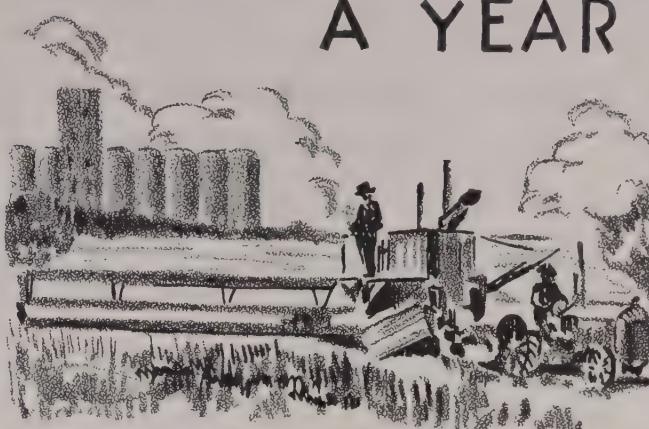
K.I. Willis Corporation

MOLINE, ILLINOIS

B. F. Gump Co. Chicago, Ill.
Ft. Worth Well Mchy. & Sup. Co. Inc. Ft. Worth, Tex.
Esmueller Mill Furns. Co. Kansas City, Mo.
Hollis & Co. Little Rock, Ark.
Ralph J. Muser. Los Angeles, Calif.
Industrial Supplies, Inc. Memphis, Tenn.
Strong-Scott Mfg. Co. Minneapolis, Minn.
R. J. Tricon Co. New Orleans, La.
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John E. Gray & Co. San Francisco, Calif.
Webster-Brinkley Co. Seattle, Washington
Esmueller Mill Furns. Co. St. Louis, Mo.
Canadian Licensees:

Geo. W. Reed & Co., Ltd. Montreal, P. Q.

**\$100,000,000
A YEAR**



GRAIN

FORT WORTH

*The Largest Terminal Grain
Market in the South*

Federal Grain Inspections at Fort Worth
Carloads

1921	.....	14,794
1925	.....	20,834
1929	.....	41,741

The Fort Worth market is the fastest growing grain market in the United States. Receipts have doubled in the past five years. They will double again in the next five.

One-half of the present grain storage capacity of 14,000,000 bushels has been built in the past five years and there is an imperative demand for at least 10,000,000 bushels additional storage. One elevator company now has 5,000,000 bushels of storage. Another has just completed the first unit of a 6,000,000 bushel elevator.

More than 1,000 miles of new railroad lines have been completed recently, are now under way or have been authorized in the vast territory served by the Fort Worth and the Southwest Kansas, Eastern Colorado and Eastern New Mexico will not only serve new areas but will connect with existing lines draining one of the richest grain producing regions of the world.

Opportunity Beckons You to Fort Worth

12 AIR LINES

Write for your copy of
INDUSTRIAL FORT WORTH



For Information, Address Publicity Department
CHAMBER OF COMMERCE, FORT WORTH, TEXAS

GRAIN ELEVATOR BUILDERS

Younglove Engineering Company

Grain Elevators, Transfer Houses,
Coal Pockets, Feed Plants
Wood or Fireproof Construction

*"If Better Elevators Are Built
They will STILL Be Youngloves"*

SPECIALIZING
Concrete Pits that ARE Waterproof

418 Iowa Bldg.
Sioux City, Iowa

Box 1172
Fargo, N. Dak.

GRAIN and COAL ELEVATORS

T. E. IBBERSON CO.

CONTRACTING ENGINEERS

MINNEAPOLIS, MINN.

INDUSTRIAL ENGINEERING COMPANY

Contracting Engineers

621 Reliance Building KANSAS CITY, MISSOURI
Grain Elevators Flour Mills
Feed Plants Warehouses Cold Storage Plants
Industrial Buildings

R. M. Van Ness Construction Company

Designers and Builders of
MODERN GRAIN ELEVATORS, MILLS
AND WAREHOUSES
Repair Work, Supplies and
Correspondence solicited
OMAHA, NEBR.

BIRCHARD Construction Co.

Architects and Contractors
Grain Elevators—Mills
B. SAMPSON Lincoln, Nebr.

The V. M. Zweber Co.

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Engineers and Contractors
GRAIN ELEVATORS
Feed Mills—Coal Plants
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WELLER Metal Pdts. Co.

Chicago Office Factory
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SHEET METAL WORK
Grain Elevators a Specialty

A. F. Roberts Construction Co.

Sabetha, Kansas
ERECTS
Elevators
Corn Mills
Warehouses
FURNISHES
Plans
Estimates
Machinery

WE SOLICIT YOUR INQUIRIES FOR CONCRETE GRAIN BINS

WE DESIGN AND ERECT GRAIN
ELEVATORS BY THE POLK
SYSTEM

POLK GENUNG POLK CO.
FORT BRANCH INDIANA

CRAMER Elevators

are preferred elevators because each is designed and built to fit the individual needs of the owners.

**W. H. CRAMER
CONSTRUCTION CO.**
North Platte, Nebr.
Plans and Specifications Furnished

Geo. W. Quick & Sons

Tiskilwa Illinois
Designers and Builders
Concrete Grain Elevators
Waterproof Pits a Specialty

ROCHELLE & ROCHELLE

*Designers and Builders of
GOOD ELEVATORS*
Let us furnish your machinery
17 JOHNSON BLDG., AMARILLO, TEX.

THE Star Engineering Company

Designers and Builders of modern,
efficient grain elevators, feed
plants, and associated build-
ings. Every plant designed
to best suit individual
requirements.

Machinery Estimates Plans
WICHITA, KANSAS

BURRELL ENGINEERING & CONSTRUCTION CO.

Designers and Builders of
**Grain Elevators, Flour Mills and Associated
Buildings**

2165 Daily News Bldg.

Chicago, Ill.

If What You Want you see advertised, tell the advertiser. If Not--Tell the Journal

FOLWELL ENGINEERING Co.

Engineers and Constructors

333 North Michigan Avenue

CHICAGO, ILLINOIS, U. S. A.



3,000,000 Bushel Concrete Grain Elevator

Designed and Built for
A. E. Staley Mfg. Co., Decatur, Ill.**GALVESTON WHARF COMPANY'S
NEW ELEVATOR "B"**

Capacity 6,000,000 Bushels

This Elevator Designed and Construction
Supervised by**HORNER & WYATT**

Consulting Engineers to the Grain Trade

470 Board of Trade

Kansas City, Mo.

**The Strongest Steel
Bucket Made**

TRY THIS TEST

Made of one-piece pressed steel, the Caldwell seamless steel elevator bucket is the strongest made, of the same gauge and size. It has round corners and bottoms—and no laps, rivets or seams. Easy pickup. Clean discharge. Carried in stock.

H. W. CALDWELL & SON CO.
DIVISION, LINK-BELT COMPANY
Chicago: 2410 W. 18th Street
New York Dallas New Orleans
Offices in Principal Cities

C-174

CALDWELL**FORM JACKS**RENT
OR
SALEfor
Grain Elevator and
Grain Storage
Construction.Accurately Machined.
Quick and Easy Operating
Positive Clutch.

Write for prices to

THE WESTERN IRON
& FOUNDRY CO.

Wichita, Kansas

For
European Markets

on grain, flour and feed products
best and most reliable information is
found in the daily

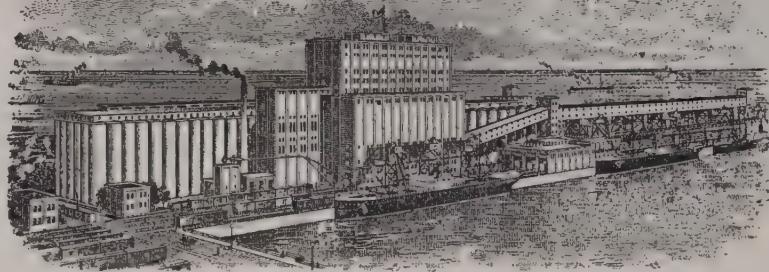
"German Grain Journal"

a sample copy of which will be
sent by

Verlag de Deutschen Getreide-Zeitung
Copenickerstr, 48/49, Berlin, S. O. 16, Germany

GRAIN ELEVATOR BUILDERS

Capacity
5,000,000
Bushels



Equipped with
Four Stewart
Link-Belt
Grain Car
Unloaders

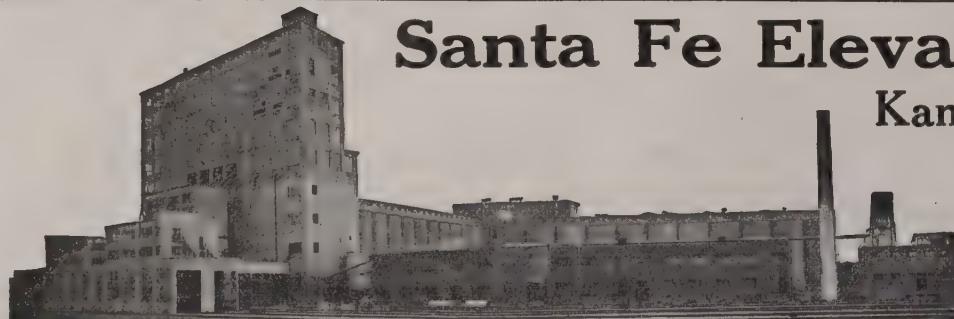
PENNSYLVANIA RAILROAD ELEVATOR AT BALTIMORE

JAMES STEWART CORPORATION
ENGINEERS AND CONTRACTORS
FISHER BUILDING—343 S. DEARBORN ST., CHICAGO, ILLINOIS

W. R. SINKS,
PRESIDENT
Phone Harrison 8884

H. G. ONSTAD
VICE-PRES.-GEN'L MGR

Phone Harrison 8884



Capacity
6,500,000 Bushels

John S. Metcalf Co.

Grain Elevator Engineers and Constructors

105 W. Adams St., Chicago

460 St. Helen St., Montreal 837 W. Hastings St., Vancouver, B. C.
17 Dartmouth Street, London, England

EARL SHEPHERD
DALHART, TEXAS
Designs—Builds—Equips
Grain Elevators
Chop Mills Warehouses

ROSS B. WILSON
Consulting Engineer
332 S. La Salle St. - Chicago, Ill.
Telephone Webster 7126

Newell Const. & Mch. Co.
Cedar Rapids, Iowa
30 Years' Successful Experience
Builders and designers of Feed Mills and
Mixing Plants, Grain Elevators, Ware-
houses, etc. Machinery Jobbers.

L. A. STINSON CO.
Engineers and General
Contractors
ELEVATORS, MILLS AND
WAREHOUSES COMPLETE
332 So. La Salle Street
CHICAGO, ILL.
General Overhauling and Improvement

Western Engineering Co.
713 Cooper Bldg. Denver, Colo.
Contractors and Builders of
Grain Elevators that more
than satisfy the most critical.

Elevators, Mills, Warehouses
Designed, Built, Repaired
Estimates Cheerfully Furnished
HOGENSON CONSTRUCTION CO.
Corn Exchange Minneapolis, Minn.

HICKOK Construction Co.
MINNEAPOLIS **ELEVATORS**

C. I. Erickson
Assaria, Kansas
Designer and Builder
Elevators and Warehouses
Remodeling Work
Estimates Promptly Furnished

Say you saw it in the
Journal
When you write our advertisers
Thanks

Chipley, Fla.—I failed to get Aug. 13
Journal. I miss it when it fails to come.
—J. J. Daring.

Dothan, Ala.—Having sold my mill
and elevator, I will be pleased to have
you continue sending my "Journal" right
on, as I would scarcely know how to
get along without it as I have taken it
for years past.—J. J. Daring.

Figure the amount of advertising
carried—Can you doubt our ability to
Produce Results

GRAIN ELEVATOR BUILDERS



Saskatchewan Pool Elevator No. 7

Port Arthur, Ont.

*Largest single Elevator Contract ever awarded, recently erected by us
in record time*

THE BARNETT-McQUEEN CONSTRUCTION CO., Ltd.

Fort William, Ontario

Duluth, Minn.

Minneapolis, Minn.



Pillsbury Flour Mills Co. Enid, Okla.

3,000 Barrel Mill—2,500,000 Bus. Grain Storage

Designed and Built in Three Periods of Construction by

Jones-Hettelsater Construction Co.

600 Mutual Building

Grain Elevators — Flour and Feed Mills

Kansas City, Mo.



Fegles Construction Co. Ltd.

Engineers—Constructors

Ft. William, Ont. Minneapolis, Minn.

3,000,000 Bushel Elevator of
Searle Terminal, Ltd.
Ft. William, Ont.

THEODORE E. SCHNITZLER

Consulting and Designing Engineer

516-B MERCANTILE EXCHANGE BLDG.
Grain Elevators Industrial Buildings
Flour Mills Feed Plants CHICAGO, ILL. Warehouses Docks, Etc.

Stevens Engineering & Construction Co., Inc.
1609-10-11 Landreth Bldg. ST. LOUIS, MO.

Designers and Builders

GRAIN ELEVATORS

Flour and Feed Mills

Warehouses

Chalmers & Borton

620 Pioneer Trust Bldg.
Kansas City, Mo.

Engineers—Constructors
Grain Elevators — Feed Mills
Warehouses

Ask for Quotations on Your Work

Two Birds With One Stone

ALLIGATOR
TRADE MARK REG. U. S. PAT. OFFICE
STEEL BELT LACING

THE great surplus of strength of this smooth hinged joint gives length and reliability of service, unexcelled, in any type of belt and practically any service.

The sectional steel hinge pin (patented) absorbs friction in the joint.

Belt End Protection
Thrown In Sealing the belt end with the powerful compression grip prevents internal friction and ply separation at the joint. Alligator Steel Belt Lacing prevents belt end troubles and *increases the life of belting*.

Kill two birds with one stone!

Eleven sizes. Sold throughout the world

FLEXIBLE STEEL LACING CO.
4627 Lexington Street Chicago, U.S.A.
In England at 135 Finsbury Pavement, London E.C.2

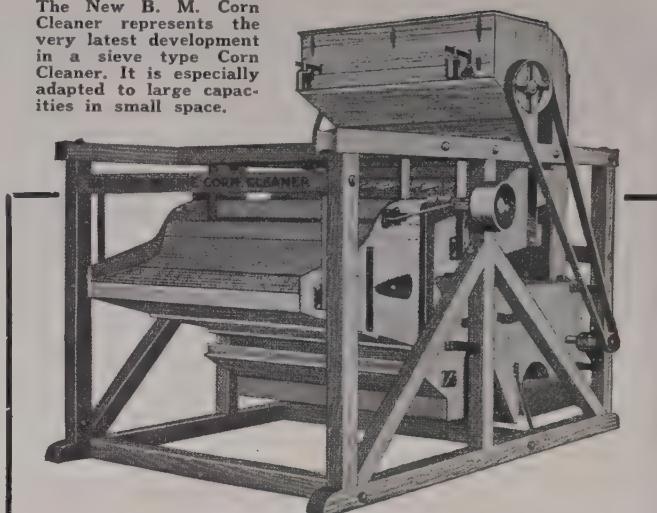
Only a Hammer Needed

Note the Alligator Stamped on the Lacing and the Yellow Labeled Box for Your Guidance in Buying





The New B. M. Corn Cleaner represents the very latest development in a sieve type Corn Cleaner. It is especially adapted to large capacities in small space.



A Request for Catalogue M-A (Section 15) Will Bring Full Particulars of Our

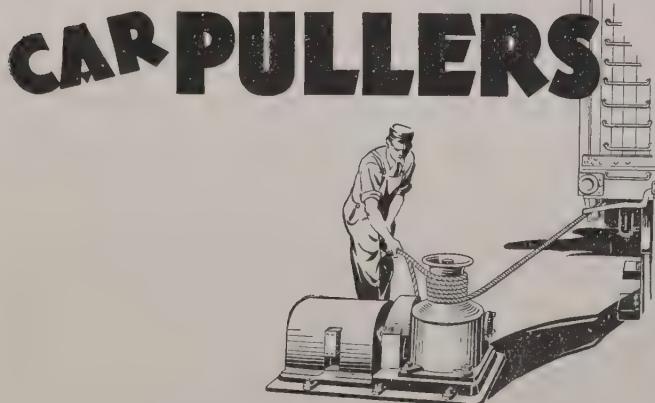
COMPLETE LINE OF CORN SHELLERS AND CLEANERS

KEEP YOUR ELEVATOR READY FOR GOOD SERVICE BY
INSTALLING THE LATEST IMPROVED

B. M. GRAIN SEPARATORS AND OAT CLIPPERS

Send us your inquiries and orders for REPAIR PARTS,
PERFORATED METAL, BELTING, CONVEYORS, ETC.

PRICES RIGHT
SERVICE PROMPT QUALITY THE BEST
BARNARD & LEAS MFG. CO.
MOLINE, ILL.



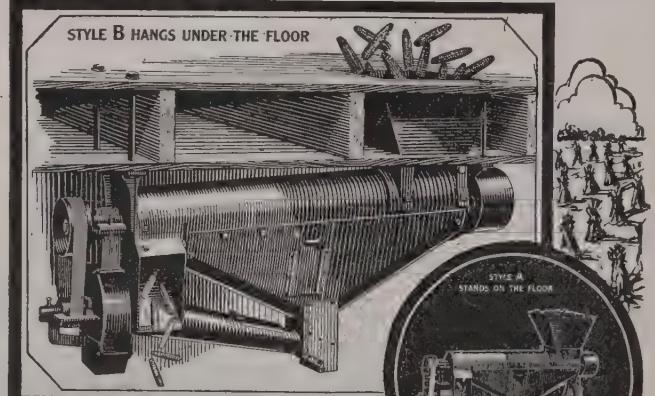
A quick, economical way to spot cars. . . . Compact, easily operated, pulls in any direction. . . . Sizes to handle one to thirty cars.

Write for Bulletin No. 1128-G

THE WEBSTER & WELLER MFG. COS., 1856 N. Kostner Ave. CHICAGO

Webster and Weller
FINEST CONVEYORS FOR 50 YEARS

TRIUMPH CORN SHELLER



The Triumph was invented by a practical mill man more than forty years ago. It has been improved and simplified since then, to be sure, but from the very beginning it was a popular success. Its operation is so simple—there are only two moving parts—and its construction so durable that it will operate year after year without need of repair. Its capacity is 75 to 100 bushels of shelled corn per hour; its power requirement only five or six horsepower.

THE C. O. BARTLETT & SNOW CO.
6248 Harvard Ave., Cleveland, O.
Representatives for the Dominion of
Canada
PEACOCK BROTHERS LIMITED
Montreal

Bartlett - Snow

TWO STYLES FILL ALL NEEDS

A copy of the
Triumph Corn
Sheller Catalogue
will be mailed without charge.

Wanted and For Sale

The rate for advertisements in this department is 25 cents per type line each insertion

ELEVATORS FOR SALE

SOUTH DAKOTA—Five grain elevators and one lumber yard for sale; all located at good points. Will sell all or any part to suit purchaser. Write Box 36, Mitchell, S. D.

SO. MICH.—Electrically equipped grain and bean elevator, with grinder, feeds, seeds, produce and coal. Property in best of condition; live town; good territory. Money maker. Write A. K. Tucker, Leslie, Mich.

Some SERVICE to your ads. I sold my elevator to the first man that answered the ad. But I received a nice number of inquiries, too. Kansas Dealer.

KANSAS—Two 10,000 bus. elevators for sale; coal; lumber yard and merchandise. In northwestern Kansas in good country; good crops; good proposition; no competition. Address 65Y5, Grain & Feed Journals, Chicago, Ill.

ILLINOIS—Two first class elevators in McLean Co. for sale at a price that is right if taken at once. Plenty of business and good town to live in. Write 65W14, Grain & Feed Journals, Consolidated, Chicago, Ill.

KANS.—Two elevators for sale 8,000 and 5,000 bus. capacity; good feed business in connection also coal and sand. Own both houses; no other—good reason for selling. Write 65W10 Grain & Feed Journals, Chicago.

IND.—Two grain elvtrs. for sale in the corn belt of Benton County, Ind.—one cement and the other cribbed, capacity 100,000 bus. Will handle from 300,000 to 400,000 yearly, in good condition, very reasonable price. Consult with J. D. Chancellor & Son, LaFayette, Ind.

ILLINOIS—35,000 bus. elevator for sale; 10-ton truck scale; modern automatic truck lifts; good two-room office, seed house; own spur track; handles 300,000 to 400,000 bus. grain annually; good coal business; also feeds; on Santa Fe. Address 65Y3, Grain & Feed Journals, Chicago, Ill.

KANSAS Elevator practically sold after three insertions. Here's what the advertiser writes: "We enclose check for three insertions of our ad. We have had more than a dozen inquiries from our ad and believe that we will be able to effect a sale." This proves conclusively the value of a Journal Want-Ad.

KANSAS—10,000 bus. elevator for sale; electric drive, truck dump; new Jay Bee hammer mill with good grinding and feed business with no other hammer mill in vicinity. No competition, large territory, coal and hay business in connection. A money maker. A good corn crop this year. Write 65Y4, Grain & Feed Journals, Chicago, Ill.

BARGAIN IF TAKEN AT ONCE—Some one is always looking for an elevator at a good grain point and reads these ads just like you're doing now, so if you wish to dispose of your present property, enlarge your present interests, or embark in the grain business, USE these columns to your best advantage just as others are doing. WE WILL assist you in the composition of copy free. We are in business to be of service to YOU. There is no wrong time to put an ad in the columns of the Journal. TRY IT.

ELEVATORS FOR SALE

CENTRAL ILLINOIS—Good elevator for sale. Write 65V4, Grain Dealers Journal, Chicago, Ill.

CENTRAL KANSAS—My elevators for sale. For information write 64B5, Grain Dealers Journal, Chicago, Ill.

OHIO BARGAINS—Elevators at New Holland and Atlanta for sale at bargain. Capacities of 20,000 and 10,000 bushels respectively. On Penn. Ry. Write 65V5, Grain Dealers Journal, Chicago, Ill.

ELEVATOR AND FEED MILL

CHICAGO—Elevator and feed mill complete for sale; operating; capacity 5 to 6 cars per day. Bargain. Write 65V7, Grain Dealers Journal, Chicago, Ill.

WANT ADS WORK WONDERS

They sell elevators, find help and partners, secure machines and engines which you want, sell those for which you have no further use, and perform a myriad of kindred services for shrewd people who use them regularly. READ and USE THEM.

ELEVATORS WANTED

WANT TO BUY OR LEASE three country elevators in Western Kansas wheat belt. Address 65Y11, Grain & Feed Journals, Chicago, Ill.

WANT TO TRADE 480 acres of well-improved farm land in Sask., Canada, for elevator in a good location. Write H. H. Palmer, Hillsdale, Ill.

LEASE WANTED

WANT TO LEASE one or more grain elevators in good grain producing territory. Write 65X4, Grain & Feed Journals, Chicago.

FEED MILL WANTED

WANT TO HEAR from anyone having a feed mill or warehouse that they wish to exchange toward a \$16,000 farm. Prefer property in a Wisconsin town on the C. & N. W. R. R. Edw. Wilkinson, Wilton, Wis.

ELEVATOR FOR SALE OR TRADE

WILL SELL Or Trade my elevator for one having a small farm in connection in a small town. Henry J. Nobbe, Nokomis, Ill.

MILLS FOR SALE

MODERN GRIST MILL for sale with modern coal bins, located on private track in town of 3,000, trade established. Will sell at bargain. Write for full description and price. Terms to suit. Owner devoting time to other business. B. W. Bowman, Dexter, Mo.

SAMPLE ENVELOPES

SAMPLE ENVELOPES—SPEAR SAFETY for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable, size 4 1/2x7 inches. Have limited supply to sell at \$2.60 per hundred or in lots of 500, \$2.30 per hundred f. o. b. Chicago. Sample mailed on request. Grain Dealers Journal, 332 S. La Salle St., Chicago, Ill.

ELEVATOR BROKERS

ALWAYS HAVE ELEVATORS for sale. To save time, please state amount you wish to invest and location you prefer. James M. McGuire, 6440 Minerva Ave., Chicago, Ill.

BUSINESS OPPORTUNITIES

OKLA.—Feed and Grain Business in good community for sale. Excellent year round feed business. Elevator and warehouses in good condition and electrically equipped. Offered for sale on account of health. Write 65W2, Grain & Feed Journals, Consolidated, Chicago, Ill.

THE WANTED-FOR SALE DEPARTMENT of the Grain Dealers Journal is a market place where buyer and seller, employer and employee, and those offering investments can meet to their mutual advantage and profit and it will pay every subscriber to give these columns a close study twice each month, because of the constantly changing variety of opportunities seeking your consideration.

HELPFUL BOOKS FOR CARLOT GRAIN HANDLERS

Clark's Decimal Wheat Values cover only wheat and show the value at a glance or with one addition of any quantity of wheat from 10 lbs. to 100,000 lbs. at any market price from 50 cents to \$2.39 per bushel. Printed on ledger paper and bound in art canvas. Weight 12 ozs. Order Form 33XX. Price \$2.00.

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Leaking Car Report Blanks bear a reproduction of a box car and a form showing all points at which a car might leak, thus facilitating the reporting specifically places where car showed leaks at destination. One of these blanks should be sent with papers for each car with the request that it be properly filled out and returned in case of any signs of leakage. Printed on bond, size 5 1/2x8 1/2 inches, and put up in pads of 50 blanks. Order Form 5. Price 40c a pad; three for \$1.00. Weight 3 ounces.

Clark's Decimal Grain Values save time and money and prevents errors. It shows at a glance, or with simple addition, the cost of any quantity of grain from 10 to 100,000 pounds at any given market price and reduces pounds to bushels on the same page. Values are shown directly from pounds without reducing to bushels. Pounds shown in red figures and values in black; price being given at top and bottom of each page. Prices for oats range from 10 to 79 cents a bushel; for corn, rye and flaxseed, 10 cents to \$1.09; for wheat, clover, peas and potatoes, 30 cents to \$1.59; for barley and buckwheat, 20 cents to \$1.49 per bushel. Order Form 36. Price \$4.00. Weight 1 1/2 lbs.

All prices are f. o. b. Chicago.

GRAIN & FEED JOURNALS Consolidated
332 South LaSalle St. Chicago, Ill.

SITUATION WANTED

DESIRE POSITION in elevators; have had 8 years' experience as manager. Bank references. C. E. Starner, Glenmont, O.

POSITION WANTED by master mechanic engineer in large mill or term. elvtr.; 18 yrs. exper. with engines, boilers, etc.; repair work; own tools. G. E. Ruffcorn, Eaglesbutte, S. D.

POSITION WANTED as manager of farmers or line elevator; 10 yrs. exper.; am a business getter. If you don't like me, don't pay me. Try me. Salary secondary. Address A. 615 N. 8th St., Columbia, Mo.

POSITION WANTED as manager or buyer for line or farmers grain company; competent and experienced. Best of references as to ability to do the job right. Interested parties address C. L. Scoggins, Blue Mound, Ill.

HELP WANTED

COMPETENT AND EXPERIENCED elevator managers, foremen, bookkeepers, auditors, second men and solicitors can easily and quickly be found through an ad in the "Help Wanted" column of the Grain Dealers Journal, Chicago, Ill.

SEEDS WANTED

ALWAYS IN THE MARKET for wild mustard seed. Send sample and quote price.

E. L. Voltz,

144 N. Park Ave. Buffalo, N. Y.

DYNAMOS AND MOTORS WANTED—Buyers of this equipment are reached in largest numbers and at the least expense through the use of the "DYNAMO-MOTORS" columns of the Grain Dealers Journal—the medium for power bargains.

SCALES FOR SALE

BARGAINS—4 and 5 bu. Richardson Automatic Scales for sale; in topnotch condition. W. H. Cramer Const. Co., No. Platte, Neb.

RICHARDSON SCALES for sale. Automatic grain elevator scales, five, six and fifteen bushel capacities. Write Standard Mill Supply Co., 1307 Waldheim Bldg., Kansas City, Mo.

HAY FOR SALE

Alfalfa—Clover—Mixed—Timothy—Prairie. Delivered prices quoted. John Devlin Hay Co., 192 North Clark Street, Chicago, Illinois.

To BUY or SELL
RENT or LEASE
an ELEVATOR

Place an adv. in the "Wanted" or "For Sale" columns of the GRAIN DEALERS JOURNAL, of Chicago. It will bring you quick returns.

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Capacity of Elevator Post Office.....

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3 PHASE 60 CYCLE MOTOR BARGAINS

60-h.p., 1800-r.p.m., 220/440-volt, G. E.
50-h.p., 1800-r.p.m., 220/440-volt, G. E.
40-h.p., 1200 and 900-r.p.m., 220/440-volt.
30-h.p., 3600 and 1800-r.p.m., 220/440-volt.
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Bargain Prices. Write for List. V. M. Nussbaum & Company, Fort Wayne, Ind.

MOTOR SERVICE

ELECTRIC MOTORS repaired, rented and sold. Independent Electric Machinery Co., 300 Southwest Blvd., Kansas City, Mo.

SCALES WANTED

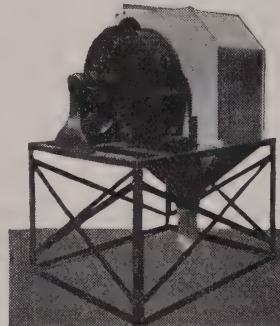
ALMOST ANYTHING YOU WANT can be promptly obtained through JOURNAL want ads.

ENGINES FOR SALE

A REAL BARGAIN—40 h.p. upright Venn-Severin engine in A-1 condition. \$500.00 like it stands. P. A. Cope, Frederick, Okla.

12-H.P. WORTHINGTON Gas Engine with friction clutch for sale; almost new, used very little; in A1 condition. Address Waldschmidt & Schneider, Metamora, Ill.

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Removes Dust, Smut Balls
Reduces Moisture
Keeps Your Pit Clean

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*The Modern Cleaner
for Elevators and Mills*

Receiving Books For Grain Buyers

Duplicating Contract Book, for the purchase of grain from farmers. Contains 100 originals printed on bond paper and perforated, and 100 duplicates on manila, with ruled spaces on the back for entering amounts delivered, numbered in duplicate. Check bound, size 5 1/4 x 3 1/4 inches, supplied with four sheets of carbon. Order Form 10DC. Price \$1.15. Weight 1 lb.

Receiving and Stock Book for keeping a record of each kind of grain received in separate columns, so buyer may easily determine total amount of any kind of grain on hand. Size 9 1/4 x 11 1/4, 200 pages, with a capacity for 4000 wagon loads. Well printed on linen ledger paper, bound in strong board with leather back and corners. Order Form 321. Price \$8.00. Weight 2 1/4 lbs.

Scale Ticket Copying Book contains 150 leaves of scale tickets, four to a leaf. Each leaf folds back upon itself, so that with the use of carbon paper, it will make a complete copy of the original on the stub, with one writing. Original tickets forming the outer half of leaf are machine perforated. Printed on bond paper, check bound, size 9 1/4 x 11, supplied with four sheets of carbon. Order Form 78. Price \$1.55. Weight 2 lbs.

Grain Scale Book, a combined Journal and Receiving book with index. Each man's grain is entered on his own page, or a page may be allotted to each kind of grain received. Both debits and credits are posted to the ledger. Contains 252 numbered pages and index, size 10 1/4 x 15 1/4, and will accommodate 10,322 wagon loads. Printed on linen ledger, bound in extra heavy black cloth covers, with leather back and corners. Order Form 28. Price \$4.75. Weight 5 lbs.

Grain Receiving Register is designed for recording the receipts of wagon loads of grain. Loads may be entered in consecutive order, or different sections of the book may be devoted to different kinds of grain. Book contains 200 pages of linen ledger paper, size 8 1/4 x 14 inches, each of which is ruled for 41 entries, giving a total capacity of 8200 wagon loads. Well printed and substantially bound in full canvas. Order Form 12AA. Price \$3.00. Weight 3 lbs.

Duplicating Wagon Load Receiving Book, designed to facilitate the recording of number of loads from one farmer in a short time. Book contains 225 leaves, size 12 x 12 inches with 38 lines each, perforated down the middle; the inside half of the leaf remains in the book, and the outer half with the same ruling printed on the reverse side, folds back over the left half with carbon between. Outer half is given to farmer. It may also be used by line agents in making daily reports to headquarters. Check bound with canvas back, nine sheets of carbon. Order Form 66. Price \$8.00. Weight 4 1/2 lbs.

Grain Receiving Ledger, may be used first as a Stock Book by posting the receipts daily, weekly or monthly from some other portion of this book, or from any other scale book, giving a page to the commodity handled; Second, as a patrons' ledger, by giving a full or half page to each patron; Third, pages may be used to enter each load of grain received in consecutive order under their respective commodity headings. The book contains 200 numbered pages with 44 lines each, and marginal index in front, size 8 1/4 x 13 1/4, ruled with the usual column headings, including Debit and Credit columns. Printed on linen ledger paper and well bound in black cloth sides with leather back and corners. Order Form 43. Price \$3.50. Weight 3 lbs. Form 43XX contains 400 pages same as above. Price \$5.50. Weight 4 1/2 lbs.

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Postage Extra.

Printed and Supplied by

Grain & Feed Journals Consolidated

332 South La Salle St. Chicago, Ill.

MACHINES FOR SALE

BARGAINS—No. 5 Robinson Receiving Separator and No. 7 Cyclone Dust Collector, in good condition. Community Flouring Mills, Berwick, Pa.

FOR SALE—Union Special, Type "L", motor driven, bag closing machine. Write or wire STANDARD MILL SUPPLY COMPANY, 1307 Waldheim Bldg., Kansas City, Mo.

FOR QUICK SALE

Motor and belt driven single and double head attrition mills, slightly used, fully guaranteed. Write, phone or wire for extremely attractive prices. DIAMOND HULLER CO., Winona, Minn.

REAL BARGAIN—50-bbl. Nu-Way Flour Mill, rolls full caliper, never been reground; also one Buckley, one Dunlap Centrifugal Reel, one Daisy Flour Packer like new. Not enough wheat and need room for storage. Come look this over. Melzer Mill Co., Effingham, Ill.

YOUR OPPORTUNITY

2 steel elevator legs only, complete with exception of belt, for 24" belt, approximately 100' centers; 4 steel elevator legs complete with belt, 26½" centers, 14x7" buckets. Standard Mill Supply Company, 1307 Waldheim Building, Kansas City, Mo.

MACHINES FOR SALE

AIR-BLAST CAR LOADER, new, very best on the market; reasonable. Write or wire Standard Mill Supply Co., 1307 Waldheim Bldg., Kansas City, Mo.

SPECIAL PRICES on used elevators, belting and cups from 6 to 20 inches. Every known machine for the Feed Mill and Elevator. Write your wants. A. D. Hughes Company, Wayland, Mich.

BARGAINS—30 complete butcher outfits consisting of coolers, blocks, scales, slicing and sausage machines. Each article a bargain. Must be seen to be appreciated. The General Storage Co., Cleveland, Ohio, telephone Cherry 8074.

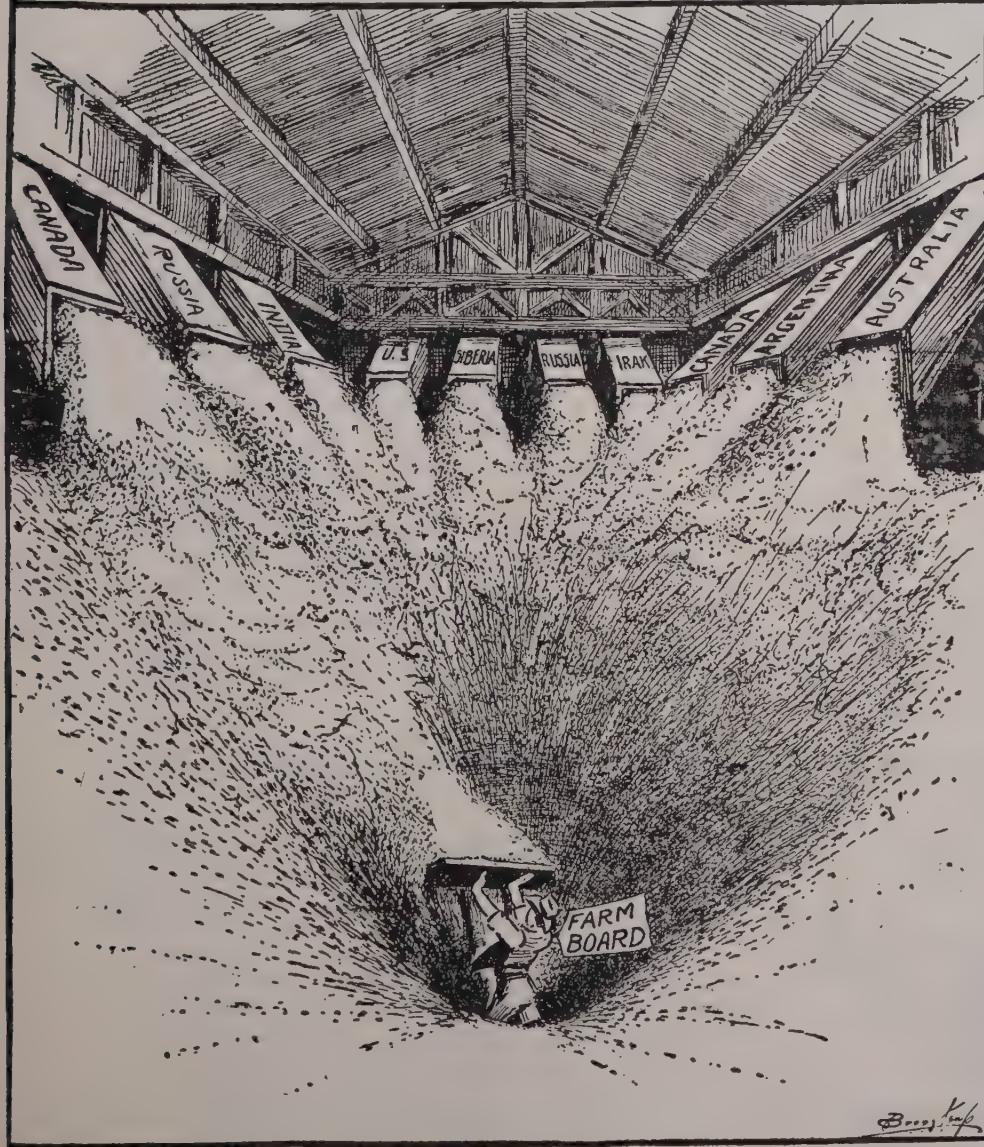
BATCH MIXERS—SLIGHTLY USED

Small, medium and large size self-contained vertical batch mixers. Practically new machines at unusual prices. Address 65X10 Grain & Feed Journals, Chicago, Ill.

BATCH MIXERS

Latest type, very best on the market, from 100 to 4,000 pounds capacity. Prices reasonable; let us have your inquiries for prompt shipment. Standard Mill Supply Company, 1307 Waldheim Bldg., Kansas City, Mo.

How Can the Board Hold Back All That Wheat?



With apologies to San Francisco Chronicle.

MACHINES FOR SALE

A BARGAIN—1500 lb. capacity Eureka corn cutter for sale. Star Feed Co., Beresford, S. D.

NEW AND USED MACHINERY FOR SALE

One 22" double head Bauer Bros. Ball Bearing, Motor-driven Attrition Mill; 1 Three pair high Feed Mill, excellent condition; 1 Hess Corn & Grain Drier; capacity 1,200 bu. We own and have listed a large assortment of elevator, feed mill, flour & cereal mill equipment on which we can make you very attractive prices. It will pay you to write us before purchasing elsewhere. Standard Mill Supply Co., 1307 Waldheim Bldg., Kansas City, Mo.

REAL BARGAINS

Prompt Attention. Quick Shipments. When in need of elevator or mill machinery, notify us. We are headquarters for power and transmission equipment, and have on hand several well-known makes of motors, boilers, engines, etc.

Send us list of all your wants. We can supply you with full line of machinery for elevators, flour, corn and cereal mills. Complete equipment for modern mills of all kinds, molasses, stock and poultry feed plants, plans, specifications, flow sheets, etc., our specialty. Write us without delay.

SPROUT, WALDRON & CO.

9 S. Clinton St., Chicago, Ill.

MACHINES WANTED

WANT AT ONCE No. 4 Monitor Separator. Describe condition in first letter. Gregg Brothers, Urbana, Ohio.

A GOOD SECOND-HAND 32-in. or 34-in. grain blower blast fan wanted. A Maroa boss or an American blower. Ball bearing blast fan only. Pollock Grain Co., Middle Point, Ohio.

WANTED

Hammer Mills, 9x30" and larger Roller Mills, Automatic Scales, Feed and Flour Mixers, Grinders, Attrition Mills, 8x32" Reels, Feeders, Bleachers. Give price and full description. Address 63N14, Grain Dealers Journal, Chicago.

RUBBER BELTING FOR SALE

A BARGAIN—Genuine Goodyear Klingtite Friction Surface Rubber Belting 9-in. wide, 5-ply—cut any length desired—45 cents per foot. This is new belting at about half regular price. Offer holds good only while present surplus stock lasts. Port Huron Machinery Company, Minneapolis, Minn.

YOU MAY BE MISSING SOMETHING. AN ILLINOIS elevator company running a 3 line ad in one issue says: "We had 25 applications from that ad. Thank you."

Cover's Dust Protector

Rubber Protector, \$2.00
Sent postpaid on receipt of price; or on trial to responsible parties. Has automatic valve and fine sponge
H. S. COVER
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10,000 SHIPPERS
Are now usingTYDEN
CAR SEALS

Bearing shipper's name and consecutive numbers

Prevent
CLAIM LOSSES
Write for samples
and prices.



INTERNATIONAL SEAL & LOCK CO.

Railway Exchange Bldg., Chicago, Ill.

ANOTHER OPERATOR IN THE GRAIN INDUSTRY THAT USES **SKF** BEARINGS**PACKARD FARMERS WAREHOUSE CO.**

Equipped with the
highest priced
Bearing in the World

YOU CAN'T UNSELL MR. ARLT NOW ON SKF PERFORMANCE IN ELEVATORS

Just why do grain elevator operators prefer **SKF** Ball Bearings? That's a reasonable question for anyone to ask, perhaps justly so, when **SKF** are known as "The Highest Price Bearings in the World." And the best man to answer that question truthfully is the one who has paid out his hard cash for **SKF** Bearings. Here's a story that carries its own moral.

Back in 1929, an insurance inspector called at the Packard Farmers Warehouse Company, Packard, Wash., found some hot bearings, and talked to the manager about installing anti-friction bearings. This was done during that winter. Now both legs have **SKF** Bearings at all places except the idlers. The difference in the cost of **SKF** and replacement of the former kind was about \$75.

Mr. W. A. Arlt, the manager, said: "Shortly after the change, we loaded out ten or twelve cars of wheat and felt all of the bearings. They were just as cool as if they had not been used. Also, we now can move or pull the belt with one hand whereas it was formerly a hard pull with both hands. The 19 **SKF** Bearings keep cool and do not worry me about oiling. They sure are very satisfactory and you would have a hard time talking me into the old style bearings again."

Interested in that kind of bearing performance in your elevator? Just give us the details of your layout and **SKF** engineers will tell you . . . HOW!

SKF INDUSTRIES, INC., 40 East 34th Street, New York, N. Y.

2633

EQUIPPED WITH THE HIGHEST PRICED BEARING IN THE WORLD

Means just this

SKF
Ball and Roller Bearings

*That the operator whose elevator is illustrated above preferred to pay more for his bearings and less for servicing or replacing them. He preferred to pay a higher price in the beginning than many times this higher price in the end. And, finally, he preferred to economize by using **SKF** bearings because they are made to do their job, not to fit a price list.*

GRAIN & FEED JOURNALS

CONSOLIDATED

INCORPORATED
332 S. La Salle St., Chicago, Ill., U. S. A.
Charles S. Clark, Manager

A merger of
GRAIN DEALERS JOURNAL
Established 1898
AMERICAN ELEVATOR & GRAIN TRADE
Established 1882
THE GRAIN WORLD
Established 1928
PRICE CURRENT-GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improvement of grain, feeds and seeds.

SUBSCRIPTION RATES to United States and countries within the 8th Postal Zone, semi-monthly, one year, cash with order, \$2.00; single copy, 25c.

To Foreign Countries, prepaid, one year, \$3.00; to Canada, prepaid, \$2.50.

THE ADVERTISING value of the Grain and Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned. The character and number of firms advertising in each number tell of its worth.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, DECEMBER 10, 1930

THE OLD QUESTION as to the permissible use of corn sugar in the canning and preserving of various food products, without so labeling them, has again come up. This time it was presented to the Farm Board by the Coarse Grain Advisory Com'ite.

RUMORS are coming from Washington that the Farm Board is to get only a paltry \$100,000,000 from Congress during its present session. Perhaps its prospective profits on its holdings of cotton and wheat may enable it to squeeze thru 1931, with only these additional millions.

THE U. S. D. A. is making a survey of the farm organizations in various sections of the country, in order that it may advise the Farm Board just what has been accomplished during the past year. It had been thought by many that the Farm Board was the special "wet nurse" for these associations and would know all of the time just how numerous was its progeny.

WITH RYE selling in Winnipeg at 18 cts. under Chicago we are prompted to ask What protection is given by the 15 cent import duty?

THE ANSWER of Kansas farmers to the Farm Board's appeal for a 20% wheat acreage reduction is an increase, according to Secretary Smiley of the Kansas Grain Dealers' Ass'n. How farmers do love dictation.

THE RUST reports from the wheat fields of Argentine recall the many reports of hot winds and crop failure from the same source last year. The friends of Argentine growers seem to be averse to depressing values by predicting a large crop in advance of its marketing.

WEEVIL and bran bugs have been doing a lot of damage to stored wheat and oats in different parts of the winter wheat section, so it behooves elevator operators to turn stored grain occasionally and inspect it vigilantly lest these pests make way with all prospective profits on the grain being held.

GRAIN MERCHANTS who have been amazed at the failure of the big metropolitan newspapers to grasp the ominous import of the Government's intrusion into business by the Farm Board route should be pleased to learn that influential journals at points as widely separated as New York City and Kansas City recently have denounced the Farm Board and the folly of attempting to control prices.

HEARINGS in the cases against 47 St. Louis livestock concerns, in which they were alleged to have boycotted organizations fostered by the Farm Board, were concluded on Nov. 27. Each defendant denied that there was any conspiracy or agreement not to do business with these Board organizations, but the principal attorney for the defense says that as Secretary Hyde is prosecutor, judge and jury, there is no telling what the outcome may be.

IN A BILL introduced in the Senate last week it is proposed to authorize the President to take control of the wheat purchased by the Farm Board, and to distribute it for seed as well as for food and feed. Just how this would relieve the pressure from the market, or who would mill that part of it to be converted into flour, is not stated in the news dispatches, but Senator Robinson, who sponsored the proposal, doubtless has a plan that is quite as fantastic as his original.

LENIENCY toward customers who are carrying grain on margin may be the worst favor that can be extended when it leads to a greater loss. The correct position is that declared by Justice Bigelow in a recent decision at Winnipeg deciding against a grain dealer who had advanced over \$5,000 on grain delivered to the elevator by a farmer, and which was sold out at a loss of \$2,146. The court said, "The plaintiff company should have sold the grain to protect itself."

THE PRESIDENT has asked Congress to appropriate \$150,000,000 more for the Farm Board to use in depressing the market value of agricultural products. It might be well for Congress to investigate the effect of the Farm Board's work on the welfare of producers before appropriating any more money. Ask your Congressman about it.

THE EPIDEMIC of bank failures recently is a reminder that it is just as necessary as ever to safeguard the collection of drafts thru banks, or to make assurance doubly sure by patronizing the express company. Just what the shippers may expect from the bank commissioners and the courts is made clear by the Southwestern Millers League, which has compiled a complete record of decisions published elsewhere in this number, with a resume of methods of express company collection.

HANDLERS of grain and food products are fortunate in being comparatively exempt from the current business depression in other lines. The net profits of 31 corporations handling food and food products, as just reported by the Federal Reserve Agent at New York were \$44,000,000 during the third quarter of 1930, against \$43,000,000 during the third quarter of 1928. How favorable is the position of the staple food handlers can be realized by comparing them with the net earnings of the 13 automobile companies reported on, which were only \$26,000,000, compared with \$114,000,000.

NOT CONTENT with the prospective ruin of many thousands of this country's business men who are engaged in the legitimate enterprise of handling the sale of all kinds of agricultural products through the operation of the Ag. Marketing Act, as it is now on the statute books, there are many state and Federal employees who are actively working for an amendment which would provide government money to foster pool purchases of everything the farmers buy. The Journal is not against either the idea of cooperative selling or of cooperative buying, *per se*, but it is against the use of government money, raised by general taxation, for such purposes.

DEMURRAGE accrues after arrival of a shipment at an outlying yard when that yard is within the common switching district with the named destination, under a recent decision by the U. S. Circuit Court of Appeals in the case of the Virginian Ry., collecting demurrage on cars held 12 miles from the destination, Sewalls Point. This is in line with a ruling some time ago by the Supreme Court of the United States that demurrage accrued on cars billed to Chicago for reconsignment and held on storage tracks at Hammond, Ind., 12 miles from the terminals of the Chicago & E. R. Co. While these decisions may have the salutary effect of speeding up the shipper's instructions for further movement, yet if they operate to cut down the receiver's time for unloading after actual placement they are unjust and should be resisted.

How Long Will Farmers Stand Political Domination

For centuries farmers generally have been envied their independence and most of them have taken much pride in their freedom. Today we find the Farm Board and the Sec'y of Agri. delighting the wheat producers and exporters of Canada, Russia, India, Australia and Argentine with persistent efforts to induce the wheat growers of the U. S. to reduce their acreage and grow wheat only for the domestic market. The only suggestion ventured as to what shall be done with the abandoned acreage, is to devote it to growing hickory for making farm implements for the Russian wheat growers.

Many of the farmers with experience in marketing grain object to the Farm Board's campaign for reduced acreage and bitterly resent the efforts of the Board to force them to market their products thru the Board's pet racketeers regardless of what they may be offered by others. The farmers have long enjoyed the right to sell in the highest market and we find nothing in the so-called Agricultural Marketing Act designed by its authors to deprive them of this privilege, but the politicians and agitators in charge of the Government's activities in grain stubbornly persist in their efforts to dictate how much wheat the farmers shall grow and to whom they shall entrust the marketing of their grain. How long the grain producers will stand for this domination is a problem puzzling the politicians as much as the elevator operators.

While our government is trying to dictate the volume of wheat production and the method of marketing the crop, the Italian Government has gone much farther and is demanding an increase of 70,000 acres each year as well as an increase in the average yield from 16 to 25 bus. per acre. It has been left to the Governor of each province to decide when each farmer is producing satisfactorily. He can take the farm away from the lazy farmer and give it to the hustler who has 30 years to pay for it. The farmers are ordered to stay on the land and raise more wheat and more children. Nothing is left to their discretion and if the plans of any farmer for operating his own farm do not meet with the approval of the Government he will forfeit his farm. Mussolini is determined to bring all arable land under intensive cultivation immediately in order that his people may escape the grasping greed of the Canadian poolers and the Federal Farm Board. Other European countries, generally large importers of wheat, have also adopted new means to stimulate the production of more wheat at home in order that they too may share in the high prices sought by the poolers.

Before the World War Russia exported more wheat than any other country, but confiscation of the crop by the Government in recent years so discouraged its production that the Communists have finally taken over the land and herded the peasants together

at the crossroads for mass production of wheat. The volume of wheat exported is governed more by the Soviet Republic's need for credit abroad than by the wishes or needs of the farmers who produced it.

The efforts of the poolers and the Farm Board to boost prices in defiance of supply and demand and without the full cooperation of the producers and consumers of the rest of the world is farcical. Their plan is thoroly impractical; their ultimate success impossible.

The sooner the wheat producers are left to the guidance of their own judgments the sooner will their problems be solved to their own satisfaction. The politicians have helped none but the agitators seeking an easy berth as most of our thoughtful farmers have long since discovered.

Approve Another Year's Trial

L. J. Tabor, of the Nat'l Grange; S. H. Thompson, of the Farm Buro Federation, and C. E. Huff, of the Farmers' Nat'l Union, are reported as being favorable to the continuation of the Agri. Marketing Act, without change, at least for another year. They are satisfied with what has been accomplished thus far and are willing to give the Board another year in which to prove its ability to make all of the farmers prosperous.

The first meeting of the Farm Board was held on July 15, 1929, and at that time No. 2 hard wheat was selling in Chicago at around \$1.25; corn at around 95 cents; cotton at around 18 cents; cattle, \$14.85; hogs, \$11.45, and lambs, \$14.55. On Nov. 25, 1930, when these 3 farm organization leaders put their stamp of approval upon what the Farm Board had accomplished wheat was 73 cents; corn, 73; cotton, 11; cattle, \$11.25; hogs, \$8.25, and lambs, \$8.00.

At the initial meeting of the Board, Pres. Hoover, among other things, said:

"I congratulate each of you upon the distinction of his colleagues, and by your appointment, I invest you with responsibility, authority, and resources such as have never before been conferred by our government in the assistance of any industry."

More than 16 months have gone; nearly a quarter of a billion dollars of government money has been spent, and the results are as indicated above. Furthermore, Congress is asked to appropriate \$250,000,000 more, to be used in stabilizing prices, financing pools, etc.

In spite of the colossal expenditure of money and of "gray matter," no single group of producers has been benefited; no pool has shown any phenomenal growth, and no great impulse has been given to business generally thru this raid on the treasury.

Giving the Board "responsibility, authority, and resources," did not automatically mean a grant of power to lift agriculture out of its "slough of despond." Bucking the law of supply and demand never has been permanently successful, and control of selling price, without control of production is an iridescent dream.

Sideline Collections

One of the most pressing questions confronting country elevator men handling sidelines is "How am I to get in my money?"

Something of the situation is reflected in the admission of a seed wholesaler. "This year," he said, "we are trying to avoid small accounts. It ties up our money. Collections are poor and if the country elevator man doesn't get paid, How are we going to get our money? Seed is not plentiful, the demand is good, and we can turn our money oftener and more safely by selling to other wholesalers or to carlot buyers, with sight draft attached to bill of lading."

Collections are poor and the difficulties confronting every grain man are most trying.

As an example of results from persistently pestering debtors the Farmers Elevator Co. at Fairview, Kan., with \$20,000 on its books last spring, the manager has now reduced his accounts receivable to \$5,000. He reports it to be a tough job and has persuaded his directors to go on the cash basis the first of the year.

A more striking example is that of Mr. Ham of the Holton Grain Co. at Holton, Kan., in the heart of the district that took the brunt of last summer's drouth. He reduced his book accounts from \$7,000 on July 1, to \$300 by the middle of November. Asked how he did it, he said:

By everlasting work. I went out nights when I knew grain had been sold or stock had been sold and kept on the trail of those who owed me. Perhaps the most difficult was a farmer who moved into this community last spring. No one knew him and no one would trust him with much credit.

He came to me last spring and wanted some corn to feed his horses, saying that unless he had grain to feed his horses he couldn't work them and couldn't produce more grain to pay up his debts and give him money to live on for another year. He said he had no money, but if I'd give him the corn he would replace it with oats as soon as he had harvested them.

I let him have the corn. Oat threshing time came and the oats didn't come in. I knew he had them but on a couple of trips to his farm he promised faithfully to fetch them in so I played along with him.

Finally he said he couldn't let me have the oats because he needed them to feed his horses.

"That is what you wanted the corn for last spring," I said.

"Yes, I know, but the new corn crop doesn't look very promising and I'm going to need those oats."

I didn't say any more that night. Here at the elevator we have a truck for delivering coal, feed and other merchandise. The next day that truck went out to the evader's farm, and when it came back, it was full of oats.

Most elevator managers tho, don't like to be presented with such difficulties, and more than the usual number will go on a cash basis the first of January.

THE FEDERAL FARM Board now admits it has purchased 104,000,000 bus. of wheat in hope of stabilizing the price. Pegging the price above that prevailing in Europe serves as a bar to the exportation of our surplus and deprives American producers of their much needed market. The Farm Board was appointed to find foreign markets for our grain, yet it is doing everything in its power to pile the unwieldy surplus up at home.

Acreage Not the Only Factor in Producing a Surplus

During the many years Tama Jim Wilson was at the head of the U. S. Dept. of Agri., he took much pride in advertising to the world our large acreage planted to wheat and our enormous surplus available for export. We were glad to sell breadstuffs to Europe at any price supply and demand indicated to be a fair figure. Much of our crop was sold before harvest and moved out promptly before the European market commenced to receive offers from other wheat producing countries. When the crop was short foreign importers paid the increased price as a matter of course, and the surplus moved out as before.

The selection of seed, the fertilization of the soil, the yield per acre, the quality of the crop, the weather and the supply of other grains as well as the carryover have always been potent factors in the amount of wheat the U. S. could spare for export, but the world's supply and demand have always controlled the average price of wheat for export and no doubt will always do so.

Sec'y Hyde waxed hysterical in his annual report when he says, "Salvation from ruin for thousands of farmers depend upon whether they will band together against the giant—overproduction."

In other words, the Sec'y wants the U. S. wheat growers to reduce their acreage to meet only the needs of U. S. consumers and abandon the markets of importing countries to other exporting countries. With our wheat acreage limited to home consumption, every crop failure would help to educate U. S. consumers in the use of substitutes and thereby reduce for all time the American farmers' home market for wheat.

Wheat has always been, and do doubt always will be grown and consumed in many countries. Its average price for any crop year will always be governed by the apparent needs and supplies of all the importing and exporting countries. The honest convictions or earnest wishes of the Canadian pool or the Federal Farm Board as to what wheat should sell for have little to do with real values abroad. Even the Honorable Sec'y now agrees that, "it is evident that supply-and-demand conditions cannot be set aside by legislation, that the dumping of surpluses abroad is not feasible, that the indefinite storing of surpluses tends to prevent rather than to cause a rise of prices."

It is fortunate for the wheat producers that at least one of our Government officials has come to recognize that trying to peg the price by buying large stocks and storing the wheat in the markets' show windows is useless, but it took a loss of 50 cts. a bushel to convince them of it.

Reducing their wheat acreage to meet the approximate needs of the U. S. for 1931 followed by a crop failure here or elsewhere would send the price to \$1.50 and our farmers would sow a greatly increased acreage next fall in spite of everything Legge, McKelvie and Hyde could do to prevent it. Price is the only influential factor which has effected a quick change in acreage.

If U. S. farmers are content to retire from the markets of wheat importing countries and willing to permit their lands to remain idle, then they shud heed the bad advice of the politicians and reduce their wheat acreage, but in making their estimate of U. S. needs they must not overlook the many other factors beside acreage which contribute to the production of a surplus.

Rulings on Drafts Thru Insolvent Banks

A compilation of the decisions of the state courts and rulings of state banking departments has been made by the Southwestern Millers League to ascertain the status of drafts sent for collection thru banks that failed before remitting.

Pres. E. H. Hogeland reports that "claims on drafts sent for collection and remittance have been recognized as of a preferred character in case of failure of state banks in at least 30 different states. Below is a list of such states:

Arkansas	*New Jersey
Florida	*New Mexico
Georgia	*New York
Illinois	North Carolina
*Indiana	North Dakota
Iowa	Ohio
Kansas	Oklahoma
*Kentucky	Oregon
Louisiana	*South Carolina
*Maryland	Utah
Minnesota	Virginia
*Missouri	*Washington
Montana	West Virginia
*Nebraska	*Wisconsin
Nevada	Wyoming

*States that have adopted the bank collection code recommended by the American Bankers' Association.

In the following 11 states such claims have been denied preferred status:

Alabama	Mississippi
California	Pennsylvania
Colorado	South Dakota
Idaho	Tennessee
Massachusetts	Texas
Michigan	

No ruling has been made on the question in the following seven states: Arizona, Connecticut, Delaware, Maine, New Hampshire, Rhode Island, Vermont. In Arizona, however, the superintendent of the banking department personally feels that such claims should be preferred.

The controller of the currency of the United States and the federal courts have almost universally denied the preferred character of items sent for collection and remittance, except where it can be shown that same have been paid in currency or by check drawn on some other bank, so that there was an augmentation of assets, and it is possible to trace the trust fund into the hands of the receiver. This rule was laid down in the case of Larabee Flour Mills Co. vs. First National Bank of Henryetta, 13 Fed. Rep. (2nd), 330. Petition for writ of certiorari was denied in 273 U. S., 727, 47 S. Ct., 238, which had the effect of affirming the decision of the lower court.

The Strong bill was introduced in Congress for the purpose of bringing the federal law into harmony with the rulings of the great majority of the states. Congressman Strong has assured us that he will make another effort to have the bill reported favorably by the committee when Congress reconvenes in December. The great importance of such legislation is obvious.

Express Company Collections.—The question has been raised whether arrival drafts should be handled thru the express company. The experience of the mills reporting to our office indicates that the drafts are very promptly handled by the express company, but frequently the customer objects to paying the drafts to the express agent in cash. This can be obviated by routing the drafts thru the express company with instructions to collect the amount of the draft in cash thru the customer's bank, if so desired. The express company insists on payment being made in cash, and that rule should not be changed by your instructions. "The charges of the express company for handling drafts are somewhat higher than

those usually assessed by the banks. The documents are sent, c.o.d., and the merchandise pound rate, which ranges from 35c to 50c, is charged for the transportation of the documents, but same must be released to \$50 value. An additional charge of 10c per \$100 value is made for all value over \$50.

Typical illustrations of the schedule charged by the railway express agency for collecting and remitting are:

\$100	.....	\$.55	\$600	.....	\$2.05
200	.....	.85	700	.....	2.35
300	.....	1.15	800	.....	2.65
400	.....	1.45	900	.....	2.95
500	.....	1.75	1,000	.....	3.25

Over \$1,000 at rate of \$3.25 per \$1,000

"The minimum charge to collect and remit for a \$1,000 draft, where papers are released to \$50 value, would be \$3.60. If value of papers is placed at \$1,000, the total minimum charge would be \$4.60. The only variation would be in the merchandise pound rates, which are based on distance."

Finality of Inspection Questioned

As between the two parties to a contract of sale and purchase the practice of the grain trade has been to consider the certificate final as the most satisfactory basis on which to do business.

A seller who has contracted to deliver grain of a specified grade and covered by an inspection certificate deems his responsibility at an end when he has furnished the certificate required by the contract. The buyer has been without recourse.

Such official proof of grade can be thrown out by the courts, however, on a showing that the inspector did not follow the approved procedure in taking samples and making tests, under a decision by the Supreme Court of Georgia in the suit by T. B. Raines against the Southern Cotton Oil Co., reported in 155 Southeastern 484.

Raines brot suit for damages, alleging that the fertilizer purchased was deficient by 10 per cent of nitrogen, and offered the analysis by the State chemist in evidence. The lower court gave him judgment, but the Supreme Court granted the defendant oil company a reversal, holding that the law of Georgia making the decision by the inspector final was unconstitutional. Sec. 1790 of the Civil Code of 1910 provides

"Should the analysis show that the fertilizer comes up to the guaranteed analysis upon which it is sold, then the statement so sent by the State chemist shall be conclusive evidence against a plea of partial or total failure of consideration. But should the analysis show that such fertilizer does not come up to the guaranteed analysis, then the sale shall be illegal, null and void, and when suit is brought upon any evidence of indebtedness given for such fertilizer, the statement of such State chemist so transmitted to the ordinary shall be conclusive evidence of the facts, whether such evidence of indebtedness is held by an innocent third party or not."

The lower court threw out a private analysis offered by defendant to show that the fertilizer was not deficient as alleged in the petition.

The court said: "In so far as the above-quoted section 1790 of the Civil Code of 1910 purports to make an official analysis of fertilizers by the state chemist conclusive evidence, it is an unauthorized invasion of the functions of the courts, and is void as violative of the due-process clauses of the State and Federal Constitutions, because it is an unauthorized attempt to legislate the truth of facts upon which the rights of parties are made to depend in judicial investigations."

The inspector admitted that he did not know the number of bags inspected and that he carried the samples home in paper bags where they were mixed and bottled at night, instead of at the place where taken as required by law.

The court added: "The requirements of the statute are not satisfied by placing the samples as drawn in paper bags and carrying

[Concluded on page 750]

Asked — Answered

[Readers who fail to find trade information desired should send query for free publication here. The experience of your brother dealers is worth consulting. Replies to queries are solicited.]

Status of Twine Bill in Kansas

Grain & Feed Journals: At harvest time we bought a bunch of twine for resale to our farmer patrons. Before selling the twine we went to the banks holding mortgages and said:

"Some of these farmers have mortgages on their wheat. They must have twine for harvesting. If we sell them the twine are we going to be able to get our money."

"Yes, of course," we were told in every case. But the twine bills on that mortgaged grain are still unpaid.

How can we collect? Can we collect from the banks that held the mortgages? There were no contracts and, of course, it is our word against theirs when it comes to suit. Does a twine bill class with a seed bill or landlord's lien in Kansas? Or has it rights ahead of landlord's liens?—W. E. Mettlen, mgr. Farmers Elevator Co., Fairview, Kans.

Ans.: The Kansas law does not provide a lien for the twine used in harvesting.

In general the law does not favor promises to pay the debts of another, and to be binding the agreement must be proved and that there was a consideration. The interest of the bank holding the mortgage is a sufficient consideration, so it remains to prove the agreement. The unwillingness of the bank to settle the twine bill may be due to a feeling that some third parties will be beneficiaries without sharing the expense of paying for the twine.

The farmer could have been sold the twine on time, giving his note, endorsed by the bank, giving the seller of the twine the fullest protection.

Farm Bureau Sales

Grain & Feed Journals: The following is a copy of a postcard mailed Nov. 18, and received by one of our customers at Davis, Ill.:

Rockford, Ill., Nov. 18, 1930.

Dear Sir: The present prices of feeds delivered to Winnebago County points are about as follows: 60% protein tankage, \$58.00 per ton; Pure Bran, \$21.00 per ton; Standard Middlings, \$19.50 per ton; Flour Middlings, \$23.50 per ton; 34% O. P. Oilmeal, \$41.50 per ton; 43% Prime Cotton Seed Meal, \$36.00 per ton; Loose Salt, \$11.50 per ton.

It has been suggested that we assemble orders for shipment to Rockford, Pecatonica, or any other shipping point where there is sufficient orders for a carload. Let us have your needs as soon as possible.—Winnebago County Farm Bureau.

We have been under the impression that County Farm Bureaus were not permitted under the law to enter into merchandise lines because of the fact that part of the County Agent's salary is paid out of tax funds. There seems to be in this vicinity a growing tendency to market feed products through organizations of this and similar nature. We would appreciate some advice as to whether the above mentioned organization is within its legal rights and, if not, what can be done to keep their operations within the prescribed limit.—The H. A. Hillmer Co., Freeport, Ill.

Ans.: Apparently you have confused the activities of the county agents with those of the Farm Bureaus. The former under the law as quoted on page 31 of our July 10th, 1930, number, are specifically limited to educational work. We know that some of them are going beyond their authority and are actually acting as agents in the purchase and sale of feeds, seed, fertilizers, etc., and we are just now trying to gather specific information which we can lay before the

U. S. Department of Agriculture in an effort to have this practice stopped.

As to the Farm Bureaus, however, that is altogether different. Congress has in several ways recognized the right of farmers to organize and buy and sell co-operatively and have exempted them from the penalties of the anti-trust laws, if they organize so as to stifle competition.

Is Contract Binding?

Grain & Feed Journals: I had a contract signed by a farmer for 1,000 bus. No. 3 yellow corn at 53½ cents, for delivery in ten days.

The farmer failed to deliver the corn within the ten days, and corn is now four cents higher.

He says he does not need to fill the contract because the contract date has expired.

Can I hold him for the loss? I did not pay him any money down. The contract is the form 10TC supplied by the Grain Dealers Journal.—Peter Christensen, J. F. Grosshans Grain & Lumber Co., Lushton, Neb.

Ans.: When a contract is in writing it is not necessary to pay anything down to make it good.

The fact that the date for delivery has passed does not invalidate the contract. Even a farmers jury will give the grain buyer judgment on these facts.

Under the laws of Nebraska and other states many years must elapse to outlaw a written contract.

Banking Restrictions on Hedging?

Grain & Feed Journals: Are there any restrictions in the banking laws of the state of Kansas, or in the rules and instructions of the Kansas state banking department that prevents their advising country banks to make loans on grain only when it is safely hedged?

Under present conditions, as we understand them, country banks making loans on grain in store in country elevators have no protection in case the market goes down below the amount of their loans. If the banks demanded that the grain be hedged they could protect themselves against heavy losses from this source.

We have been unable to learn if there is anything in the state law to prevent banks making such demands, or even such recommendations.—H. N. Brown, Atchison, Kan.

Ans.: State regulation of banks is directed not so much to protect the banks against doing a losing business as to prevent loss to depositors. The bankers are presumed to know enough not to make loans on poor security that may depreciate in market value, and the state does not presume to tell the bankers how to run their own business.

It is a matter entirely between the bank and the customer. A bank can refuse to make a loan and is not required to state the reason for the refusal. The bank can make it a condition for loans on grain that the holder protect all concerned from loss by decline in market value by hedging in the future market. In fact, that is just what the Canadian banks did a few weeks ago in the case of the Canadian Pool. The Pool declined to hedge the stated number of bushels and the banks thereupon refused to make the loans that would have enabled the Pool to make advances at the higher level then prevailing. If the Pool had hedged all its holdings, unlimited capital would have been forthcoming to carry every bushel of its cash wheat.

On the other hand a pool, a country elevator or an individual farmer has a right to speculate by carrying wheat unhedged and

unsold. Such bull speculators, however, have no right to operate on a margin so thin that those aiding them may suffer loss by an extraordinary drop in the market price. If a wide margin is allowed and kept good by reducing the loan as the market drops any suggestion to the contrary from the state commissioner of banking would be superfluous.

The United States Government's Grain Stabilization Corporation is carrying over 100,000,000 bus. of wheat unhedged and doing it on bank money.

Status of Threshing Coal Bill

Grain & Feed Journals: Does a bill for coal used in threshing wheat have any standing over a landlord's lien against the crop? Some of the Kansas elevators still have threshing coal bills outstanding.—Bud Peterson, mgr. The Farmers Union Elevator & Merc. Co., Baker, Kan.

Ans.: It is only in the cotton states that liens are granted by law for "supplies" employed in making or harvesting the crop, and even there the "supplies" would have to be used on a certain farm to make the crop lien hold.

The Kansas law does not allow a lien for "supplies."

The Fallacy of Price Control of Commodities

Excerpt from address by THOS. T. HOYNE, Chicago, before Farmers Elevator General Com'ite

The basic idea of the new economics is that prosperity can be manufactured out of thin air by a few magic words enacted as a statute. The theory appears to be that people can be made to spend their money in buying all manner of things regardless of whether they want them or not and regardless of their own idea of what they are worth.

A fundamental mistake in the Farm Board policy is the extending of too much credit to unsuccessful so-called co-operative marketing and producing organizations. Lending money to carry perennial crops in storage can not make a market in which they can be sold at a good price.

Small, real co-operative organizations most deserving of assistance, did not count on achieving success by borrowing money, but the big organizations assumed that all they needed to be successful was big capital, represented at the outset by borrowed money.

The farmer-owned elevator represents true co-operation in the locality. The individual is not hampered in selling what is his whenever he sees fit. So-called co-operation as conducted under the Federal Farm Board is not co-operation at all, but attempted manipulation, the very thing the government itself forbids in speculative markets on exchanges.

Every month that passes adds an enormous sum for storage to the cost of a vast volume of wheat which the government must continue to hold, and for which it can never find a market. The wheat will have to be sold eventually without taking into account its cost, with an ultimate enormous loss to the government of the United States. Federal buying of wheat merely piles up an enormous supply.

New Head for Canadian Pool

John MacFarland of Calgary, Alta., has been appointed general manager of the Canadian Co-operative Wheat Producers, Ltd., and will have the co-operation of his intimate friend, R. B. Bennett, premier of Canada, in obtaining Dominion aid.

Mr. MacFarland is an experienced grain man and is expected to conduct its sales on a business basis. He is studying what to do with the wheat on hand and has made no announcements, except that he will accept no salary. The post has been vacant since E. B. Ramsay resigned a year ago.

Farmers Elevator General Com'ite Moves Against Farm Board

The Farmers Elevator General Com'ite created at Mason City, Ia., as reported in the Grain and Feed Journals Consolidated on pages 607, 608 and 609 of Nov. 12 number, held its next and second conference at the Great Northern Hotel, Chicago, Dec. 1 and 2.

THEO. FREDERICKSON, of Murdock, Minn., chairman, called the first session to order at 11:20 a. m., with more than 50 present, including a liberal representation from Illinois, stating that "The purpose of this meeting is to formulate some plan to affiliate with the Farm Board in a way to do us some good."

We can not see any benefit in signing up with the regionals as set up.

R. B. ORNDORFF, Bloomington, Ill., sec'y, read the minutes of the Mason City meeting, which were approved as read. He said:

The com'ite has started work already on financing suited to the particular needs of the farmers elevator companies. Hundreds of elevators over the whole country are handicapped because they have not the financial facilities; and by the time we call another meeting we will have something definite to offer.

F. W. STOUT, Ashkum, Ill.: We hear a lot from the promoters about the inefficiency of the farmers elevators.

MR. ORNDORFF: There has been an effort by two regionals to take over our elevators, that would mean taking away the local control and putting it into the hands of the regional, which we do not believe is a good thing for our communities.

We do not care to have the marketing of our grain taken from a high grade man and left to a mere grain loader.

Discouraged farmers elevators will listen to the promoters' talk and surrender control without the investigation that they would give to a proposition affecting their private business. If a better proposition is offered we would be foolish not to take it. After a campaign lasting all summer they claim to have 25 elevators signed up. Many more elevators have considered the regional proposition carefully and turned it down.

The farmers have not asked for the Government set-up and do not want it. It is only by the use of intensive high pressure salesmanship that they have been able to obtain their few signers. Our farmers elevators of the middle west should stop and consider at this time before turning over the entire control of their elevators to outside interests. Their judgment so far is that they will let it alone. Stockholders have voted against it by 2 and 4 to 1.

MR. FREDERICKSON: About the same situation exists in the state of Minnesota.

S. S. BEACH, Hutchinson, Minn.: We feel pretty snug in Faribault County, but there is danger lurking. No one has had brains enough to come forward with a workable plan under the Agricultural Marketing Act.

There are all grades of co-ops., but the substantial ones have not got recognition from the Farm Board. There is going to be a case of abortion and the co-operative movement will have to be the father of that miscarriage.

Why in the name of common sense could not the Farm Board get the money to us

directly without the red tape of regional guaranties?

Adjourned to 1:30 p. m.

Monday Afternoon Session

J. R. NATION, Colon, Neb., read a paper on the "Failures of the Farm Board" which is published elsewhere.

B. L. EWING, Doland, S. D., spoke on the topic "Has the Farm Board Made Good?" and his remarks appear elsewhere.

Telegrams from a score of South Dakota farmers elevator companies were read by Mr. Ewing, the tenor of which was "Keep up the fight for the farmer," "We are for you," "We indorse your program of progress," "Keep up your activities."

THOS. TEMPLE HOYNE, Chicago, delivered an able address on "The Fallacy of Price Control of Commodities" which appears elsewhere.

E. G. DUNN, Mason City, Ia.: I can take you to a road in Iowa eight miles long on which every farm on both sides of the road has been foreclosed and lost in the last four years. This problem can not be solved by the wave of a hand. For 6,000 years the inhabitants of the farm have been slaves of the soil, except in the Mississippi Valley and history is going to repeat itself here. We Democrats are just waiting. We are going to let you run it.

The sentiment in Iowa is that we are not going to part with the control of our elevators to anybody at any time.

The Farm Board was designed to handle the emergency situation on the farm but it has never attempted to do so. Ten days ago a man sold at 19 cents a bushel oats that had been grown on land paying an annual tax of \$3.25 an acre.

A system should be worked out to give immediate and substantial credit to the elevators in the country towns.

We are afraid if the government got our elevators it next would take the trucks in which we haul our corn.

CHAIRMAN FREDERICKSON appointed the following com'ites:

LEGISLATION: B. L. Ewing, Doland, S. D.; J. R. Nation, Colon, Neb.; Theo. Frederickson, Chas. Holz, Buckley, Ill.; and Will Zerbuchen, Dodge City, Kan.

ORGANIZATION: E. G. Dunn, V. L. Marks, Lake Fork, Ill.; S. S. Beach, R. B. Orndorff, and J. W. Overton, Webster, S. D.

FINANCE: Millard R. Myers, Western Springs, Ill.; J. A. Henebry, Plainfield, Ill.; A. F. Nelson, Minneapolis, Minn.; Will Zerbuchen, and R. F. Gunkleman, Fargo, N. D.

EDUCATION: A. F. Nelson, F. W. Stout, Oscar Jacobs, Gayle Snedecker, George, Ia.

Adjourned for banquet.

The Banquet

The dinner in the evening of Monday at the headquarters hotel was well attended, there being nearly 50 present.

PROFESSOR BOYLE of Cornell University was the speaker of the evening. After telling several stories in a humorous vein the Professor said:

The co-operative movement has always suffered from overpromotion. I could call the roll of 25 states in which 136 marketing ass'ns were organized not one of which is alive today.

When the Farm Board came into being it did the same thing and its creatures will die. Overpromotion is bad for the farmer and for everyone.

A thing gets so big that its bigness is bad for it. Bigness is no sign of soundness.

Last spring I was employed by the Cuban government at Havana in a study of the sugar situation. After three years of restriction there was more sugar in the world than ever. When they started the control sugar was 4 cents and when they ended 1 cent per pound. They then formed a 100 per cent pool; but a New York buyer said he did not buy a pound of Cuban sugar for three months and the pool, instead of running a year ran only nine months.

The Canadian pool is one of the big organizations and I have advices today that it is being liquidated. It took the Canadian Pool six years to ruin the farmer. The farmer in Saskatchewan gets only 15 cents a bushel for the best grain and is ruined. The Pool is to blame, for having accumulated the big carryover. Now they will have to get 400,000,000 bus. of wheat out of the country, due to damming up the stream because they had the power to control it. It will take the U. S. Farm Board only two or three years to ruin the farmers of this country.

I suggest an amendment to the law that the \$500,000,000 be put back into the treasury. The Marketing Act puts on the members of the Board impossible duties. As the man said who found insects between the sheets "I have nothing against you but I do not like the way you do business."

You will see the Farm Board go pretty soon.

MR. HENEBRY read the following report for the finance com'ite, and it was adopted:

Report of the Finance Com'ite.

We heartily approve of the report of the Farmers Elevator General Com'ite in its effort to secure loan capital on a more satisfactory basis than many of them are now able to secure it; as explained by the secretary.

We consider farmers elevators a high class business institution entitled to borrow money on its grain at low rates and under the most advantageous terms and conditions. The condition of many local banks and of many of our farmer members makes it necessary to seek outside capital.

For various reasons our local companies have never been able to secure from financial centers the recognition to which they are entitled. This applies to loans on grain in store as well as to grain handled in regular course. We have been hampered in many cases for the lack of operating capital, and are paying a higher rate of interest on the average than many of the companies with which we must compete.

Many elevators are under-capitalized, and would be greatly benefited by securing facility loans on an amortization plan, or other terms suited to their needs and conditions.

By working together, we believe, the General Committee will be able to bring to us a plan that will help us to finance our elevators adequately and so make us better able to serve our communities, and to meet competition.

The com'ite is hereby instructed to continue working on the problem and to submit a financial program at an early date.

A round table discussion generally participated in covered almost every phase of financing farmers elevators. That there was a real demand for money was pointed out by Mr. Flemming who stated that two years ago the banks of Minneapolis had \$34,000,000 loaned to the farmers elevator companies.

MR. HENEBRY: The one thing that has caused more failures than any other is taking grain on storage and shipping it out.

MR. DUNN: Very few farmers elevators in Iowa are now doing it.

Adjourned to Tuesday morning.

[Concluded on page 750]

Letters from the Trade

[The grain dealers' forum for the discussion of grain trade problems, practices and needed reforms or improvements. When you have anything to say of interest to members of the grain trade, send it to the Journal for publication.]

Record Car of Corn!

Grain & Feed Journals: James E. Bennett & Co. handled last week what is said to be the largest car of corn ever received at the Chicago market. The car was shipped by Mr. Ed Haugens of Evans, Ill., for the account of the Stotler Grain Co., of Streator, Ill.

The Chicago Board of Trade Weighmaster, J. A. Schmitz, issued an official weight certificate showing a net weight of 156,340 lbs. or 2,791 bushels and 44 lbs. of old corn.

Mike Lavelle, manager of our Streator office, solicited this shipment, and what a car it was!—James E. Bennett & Co., L. R. Carpenter, Chicago, Ill.

Why Not Have Pegged at \$1?

Grain & Feed Journals: The recent action of the Farm Board in its pegging operations has been so rank that I hope the press will thoroughly expose it.

At the meeting of the State Secretaries of Agriculture at Washington the last of October figures and information were given them showing that the shortage of feeds would more than use up our entire wheat surplus. This means that information at hand shows that we are on a domestic basis. After the pegging of the price a week ago Mr. Legge was credited in the papers with having made the statement he was sure they could stabilize the price around a dollar. This makes me madder than anything they have done before. If they can stabilize the wheat market at around a dollar, what does it mean that they waited until it dropped to 73 cents? If they have information that substantiates that conclusion, Why are they withholding it?

There is a reason for all this. The difference in time between the dollar and the 73 cents, has seen thousands of farmers ruined. Depressed conditions have caused thousands to be forced to sell their crops at prices that have driven them into bankruptcy. During all that time, or at least a portion of it the F-B has been in possession of information that, had it been given to the world would have turned the tide and prevented this tragedy. I am basing this on Legge's own statement. And he has ruined the very people he was appointed to aid. This has not been a mere coincidence, or unfortunate occurrence. The information was known prior to November 1. The break since that time could have been prevented.

My own conclusion is that the F-B, knowingly, as per Legge's own statement, deliberately permitted the price to drop to that level in order to buy up huge amounts at the bankruptcy sale, thus permitting them to hold it until the advance to the dollar is reached and then market it at a large profit. Personal honors and laurels would be the reward. But they are doing it over the ruins of their victims, the very ones they are presumed to help. If I am wrong there should be ample explanations for all this in the near future, but I do not expect to ever read them. If they are guilty, the results of the last election will be a partial penalty for the Administration.—E. L. Brown, Chester, Neb.

Looks for Flood of Congressional Investigations

Grain & Feed Journals: It begins to look as tho the winter will bring a flood of Congressional investigations, and perhaps new panaceas for the farm problem. I really believe the present activity of stabilization is for the purpose of staving off an equalization fee this winter.

It begins to look like wheat is rapidly getting to a domestic basis; the feeding that is going on is tremendous red wheat is very scarce and can rarely be located even at high premiums.—Ralph Brown, Cincinnati, O.

Farmers Will Do Business Where They Get the Best Return

Grain & Feed Journals: One thing that Jas. C. Stone, vice chairman of the Federal Farm Board, said in a speech some time ago, is not only true, but spells the doom of the scheme which he is promoting. He says, "Farmers generally can be expected to do business with the one that gives him the best return." Aside from grammatical incapacity, the writer of this statement was right. Propaganda, supported by governmental millions, and the well remunerated efforts of a host of organizers, will be effective for a certain period of time.

When the obvious failure, however, of the entire pooling scheme is reflected in returns received by producers for their products, then the truth (and to the Farm Board the sad truth) of Mr. Stone's unintended kernel of veracity will be brought home to the Farm Board and to the governmental administration which supports it, with telling effect.—Floyd Oles, manager Feed Dealers Ass'n of Washington.

Equity Union Settlement?

Grain & Feed Journals: Last spring we shipped 12 cars of wheat from here thru the Equity Union Grain Co. at Kansas City and Omaha, to the Farmers National Grain Corp., during the pegged price period. Our shipments were made to the Equity Union, which organization turned them over to the Farmers National. At time of shipment we drew draft according to cash prices, which were about 10 cents under the pegged price. The drafts were properly honored, except that the Equity Union drew back on us on the last two cars to the extent of \$500, because they said our drafts were too high.

We are members of the Equity Union, having joined prior to this shipment for the purpose of obtaining the pegged price. Final settlement on the basis of the pegged price has never been made to us. On complaint to the Equity Union we are told that the Equity Union has been unable to get its final settlement from the Farmers National. Complaint to Huff at Chicago brought no answer, except an auditor of which we had no knowledge, who checked our records to find out if anything was wrong about our qualification. Nothing was wrong.

We bought the wheat from our farmers on a basis of the pegged price. Is there any way we can collect what is due us in line with the promises of the Equity Union and the Farmers National Grain Corp.?—Exeter Elevator Co., Exeter, Neb.

Only Garlic Remedy Is "Eradication"

Grain & Feed Journals: In looking over your Nov. 26 number I notice a question, "Value of Garlic Separation" and the reply to the same. For several years the Crop Improvement Committee of the Southern Illinois Millers Ass'n and the writer has made a campaign throughout Southern Illinois and a partial one in Indiana. The solution of the garlic question in wheat is "Eradication."

The decreased value of the wheat crop entails a heavy loss both to the grower and to the millers, but it does not stop there. Milk producers have lost heavily through tainted milk; the poultry producers have lost heavily through tainted eggs; and even beef cattle has brought losses to the cattle producers where garlicy wheat or wheat fields used as pasture constituted a part of the feed.

Spread of garlic has continued over a period of 25 years from the Eastern states on through the West until today it is safe to say that one-half of the wheat producing states of this country find garlic growing somewhere within their fields. While it is late to start the program on garlic eradication for this fall weather permitting us to say that if the ground will permit plowing might be done up to the middle of December. No machinery has ever been found that will separate, successfully, wild garlic from wheat.

Garlic will grow almost anywhere. It is carried by water down the streams, by the birds and scattered throughout wheat fields during threshing time when the thresher moves from one field to another. Some farmers have been careless about the seed wheat they use and planted garlic, unknowingly, when the wheat was sown.—J. L. Grigg, director Soft Wheat Crop Improvement District, Sparta, Ill.

Doubts Benefit of End Door for Grain Cars

Grain & Feed Journals: With regard to the resolution passed by the Society of Grain Elevator Superintendents that "The Legislative Com'ite be instructed to inquire into the feasibility of requiring by law all railroads to provide a three foot door at each end of all cars carrying grain, to facilitate unloading," I feel that this is a mistake and that the unloading of grain cars would not be hastened by having doors at each end of the cars, but on the contrary it would mean more cost in installing temporary doors and possibility of leaks and loss of grain in transit.

In order to secure as much information as possible I wrote Mr. J. A. Schmitz, Chairman of the Contact Com'ite of the Terminal Grain Weighmasters National Ass'n, regarding same and quoted the resolution passed to which he has replied as follows:

The subject of "End doors for box cars" has received the attention of the Contact Com'ite of the Terminal Grain Weighmasters National Ass'n. We are unanimously of the opinion that no further opening should be made in box cars, at least openings that would jeopardize grain loadings.

The resolution adopted by the Society of Grain Elevator Superintendents does not in any way make clear just how such a door at the end of the car would facilitate unloading and I am willing to plead entire ignorance of how such a change in the construction of box cars would fit in with the present day trend of grain unloading methods. The grain unloading supervising forces have welcomed the day when the so-called lumber door at one end of the car, which is now on the wane, would disappear entirely and solid unbroken steel ends for box cars have had the universal endorsement of those interested in the safe transportation of grain. I should be very much interested to know just what claims are made in favor of "a three foot

door at each end of all cars carrying grain." You will note Mr. Schmitz closes his letter with the following:

"I should be very much interested to know just what claims are made in favor of a three foot door at each end of all cars carrying grain."

And I would also be glad to receive the information as to what benefits there are, and upon receipt of same would be glad to advise Mr. Schmitz regarding same.—Henry L. Goemann, Mansfield, O., Chairman Transportation Com'ite, Grain and Feed Dealers National Ass'n.

The Itinerant Feed Grinder

Grain & Feed Journals: I have had in the past six years a great deal of experience directly with the elevator trade, having sold a number of feed mills to it, and I have a very wide acquaintance among the trade. What is most interesting to you is the fact that I have always heard great praises for the Grain Dealers Journal.

I don't know if you have taken up the policy which milling journals have taken up or not, but I think it is a wonderful feature. You know that many elevators have gone to a great expense to give their trade grinding equipment, and have given the best of service. In doing this for their trade it was absolutely necessary to use electric service. In a great many instances the electric cost has been exceedingly high and the minimum cost to a great extent has been \$1.00 per h.p. A great many of the modern grinders are equipped with 50-h.p. motors and on up, so you can see that buyers have to do a

great deal of grinding to meet overhead expenses of which electric power is the main factor.

During the past six months there has come into existence a great menace to the elevator and grinding business and while my firm conviction is that it will be a short-life proposition yet it has done a great deal to discourage the elevator men as their grinding business has fallen off more than half. This menace is none other than the "Traveling Feed Mill" which goes around through the country and grinds for the farmer. A truck of some kind and a small farm mill with an engine composes the outfit; some finance company backs them so the only outlay of expense is their gas and oil. The farmer forgets his obligation to the elevator or mill and thinks that a few jobs given to these traveling fellows doesn't mean much, but when fifty or seventy-five different farmers do this same thing, it does mean something to think about, and there should be some remedy to make the traveling truck put to as much grief as the fellow who has invested a great deal and has to stay at home in order to get the business.

I have talked with a great many elevator men and they seem to think that a tax can be put on these traveling machines and such legislation so as to make it an up-hill business for them, and they tell me that several of the trade journals have taken up a policy of making a charge of about \$10.00 (ten) which includes the subscription of the magazine, and this membership goes toward financing a lobbyist at the next session of legislature which will convene after Jan. 1, 1931.—R. E. Goodman.

on full time in order that it may turn out those dollars that spell profit?

Is efficiency based upon rate of return; gross return, or upon increased value put back into the farm? Is the farmer who clears \$300 on 30 acres inefficient while the one who clears \$3000 on 300 acres is efficient? Is efficiency based upon the law of averages and if so, what is the yardstick by which the individual is to be measured?

A Production and Consumption Balance

Chairman Legge, in an address before the National Ass'n of Marketing Officials, at Chicago, on Dec. 2, in explaining how it was possible for the farmers to come close to a balance between production and demand for wheat, used the following language:

"Seasonal variations in crop yields will always be with us. However, a study of the records of the past, indicate that it is entirely possible to measurably control this situation, affecting that particular product. Take wheat as an illustration. The average yield is something over 14 bu. per acre, and during the last 25 years it has never run above 17 bu. an acre or below 12. A complete failure may occur in one locality, an excessive crop in some other locality, but by and large they balance out to the end that the average production per acre planted, varies but slightly."

From this statement he concludes that production control is feasible and a sound doctrine. He sees no other solution for the farm problem.

Just how far limiting acreage would or could go in the control of production is clearly shown when it is noted that the average wheat acreage during the 25 year period referred to by Mr. Legge, was 54,252,000, and upon that basis the difference between a 12 bu., and a 17 bu., yield would be 271,260,000 bu. Cutting the acreage 20 per cent, insisted upon by Chairman Legge, would still leave a possible variation of 217,000,000 bu., while depending upon an aver-

age yield of 14 bu., per acre would mean a surplus of 130,205,000 bu., if the yield happened to be 17 bu. per acre, and a shortage of nearly 87,000,000 bu., if the yield happened to be only 12.

The size of these different totals shows the folly of attempting to strike a balance between production and consumption.

Has the Farm Board Made Good?

Address by E. L. EWING, Doland, S. D., before Farmers Elevator General Com'ite at Chicago

The first announcement by the Federal Farm Board was that it would build on the model of the great Canadian pool, altho students of marketing knew at that time that the pool was practically insolvent. Later in South Dakota the Board's representative said "We should stand shoulder to shoulder with that pool."

Their statement that the local farmers elevator would not merchandise the grain meant that the manager would become a mere shipping clerk.

By maintaining the pegged price at a high level exports were prevented, the result being a benefit to Canadian exporters at our expense.

After their initial purchases of wheat thru the Stabilization Corporation they claimed a substantial profit from their operations. We are at a loss to understand how a profit could have been realized on a constantly falling market unless the Stabilization Corporation sold short.

Utterances of the Farm Board to the effect that prices were too low and that higher prices would prevail in January and February, 1930, led farmers to believe the Board had some way of maintaining prices. Acting on this information many farmers held their wheat and suffered substantial loss.

Making loans above the market value drew large shipments to the terminal markets, which grain should have been kept on the farm and the farmers advised that the grain was worth more as feed for cattle and hogs.

What will be the result of the continued accumulation of wheat in the hands of this corporation, which has not shown any constructive plan for their holdings that are already burdensome? Is it sound business policy to count on crop failures in other countries?

By selling wheat to the millers at the prevailing market prices the Farm Board has destroyed the premium market for wheat that we formerly enjoyed at Minneapolis. The Board virtually told the millers that if they paid farmers a premium on the run of shipments direct from country stations the Board would expect the same prices.

Is there not the possibility that just as the debacle of the Canadian Pool threatens a financial calamity to the Canadian business world so may the United States Government Pool complete the ruin of the business structure in America?

This is not intended as a harsh criticism of the individuals composing the Farm Board, but only as an analysis of their activities as they appear to us.

We believe that could the farmers elevators have had the opportunity to assist in a constructive program, building from the ground up, with our facilities as the basis, present conditions would have been less unsatisfactory and future results would be more advantageous to the producer.

With the advent of the government selling agencies we feel that this business should be conducted competitively at the terminals without restraint by marketing contracts.

Mr. Legge has said "We have nothing better to offer than the present selling system." After a year's activity we feel that statement is justified by the results.

All the way thru the Farm Board's announcements and policies have been detrimental to the producer.

Grain Market Factors

President Hoover's proposed \$25,000,000 seed and feed loan, has been boosted to \$60,000,000 by the Senate agricultural committee.

Hungary has forbidden the importation of flaxseed from Russia; and all other imports from that country into Hungary will be subject to special permits.

From Aug. 1, to Dec. 1, Russia has exported 58,592,000 bu., of wheat or more than one-fifth of the exports of the entire world, according to figures compiled by Broomhall.

The German government has again increased the duty on imported wheat, this time from 185 marks to 250 marks a metric ton, which is equal to approximately \$1.62 a bushel, an increase of 42 cents over the previous rate.

Production of oats in the 28 countries so far reported, which in 1929 raised 91 per cent of the estimated world total, exclusive of Russia and China, amounts to 3,373,757,000 bu., a decrease of more than 2 per cent from the production in those countries last year.

The 1930 production of barley in the 31 countries so far reported, which in 1929 raised 80 per cent of the estimated world total, exclusive of Russia and China, amounts to 1,315,366,000 bu., a decrease of nearly 5 per cent from the production of those countries last year.

Another nail in the coffin of the U. S. Farm Board has just been driven by Dr. J. G. Dickson of the Wisconsin College of Agriculture, who has returned from an extensive tour of Russia with glowing accounts of tremendous grain production. "The Russian wheat crop this year" he says "reached the pre-war level with 1,180,000,000 bus."

Disgusted pool members walked out of a local pool meeting at Notre Dame des Lourdes, Man., recently, after learning of the deficit. They did not stay to elect a new board.

To combat a disease destroying barley the Ia. Exp. Sta. is trying out talc in the manufacture of a dust containing sodium bisulphite, bicarbonate of soda and other chemicals.

Exports of Wheat

The following table compiled from Department of Commerce statements shows the monthly and yearly exports of wheat, including flour, from the principal U. S. ports:

	1930-31	1929-30	1928-29	1927-28
July	16,186,500	13,573,000	7,064,000	11,943,000
Aug.	24,167,500	16,936,000	14,588,000	28,136,000
Sept.	13,183,000	18,338,000	25,706,000	39,598,000
Oct.	12,296,000	14,666,500	28,272,000	36,044,000
Nov.	15,181,000	15,955,000	26,698,000	
Dec.	12,129,500	11,866,000	11,986,000	
Jan.	13,825,000	9,559,000	11,558,500	
Feb.	9,347,500	8,704,000	6,536,000	
Mar.	7,251,500	9,152,000	7,289,500	
Apr.	7,253,000	8,928,000	7,659,500	
May	10,064,000	16,986,000	8,626,000	
June	12,287,000	8,902,000	8,093,000	
Exports crop yr.	150,852,000	165,682,000	204,076,000	

Canadian Grain in U. S.

The following table exhibits the quantities of bonded grain stored in the United States reported last week compared with the same week one and two years ago.

	Dec. 6, 1930	Dec. 5, 1929	Dec. 4, 1928
Wheat	33,830,000	38,714,000	38,630,000
Oats	255,000	681,000	896,000
Rye	561,000	431,000	513,000
Barley	1,436,000	3,141,000	6,003,000

Chicago Grain Stocks

Wheat stocks in all positions in Chicago decreased 632,000 bu. last week; corn, 73,000 bu.; oats, 508,000 bu.; rye, 330,000 bu. and barley, 52,000 bu. Details follow, last three ciphers omitted, except in the totals:

	Public	Private	*Total	Last Yr.
Wheat	7,919	10,144	19,381,000	25,201,000
Corn	336	1,102	1,438,000	993,000
Oats	1,908	5,000	7,758,000	4,947,000
Rye	2,983	264	5,666,000	5,468,000
Barley	322	1,996	2,318,000	547,000

*Includes 1,318,000 bu. wheat; 850,000 bu. corn; 2,419,000 bu. rye, and 792,000 bu. barley afloat.

U. S. Grains in Canada

The Canadian Bureau of Statistics reports the following amount of U. S. grain in store on Nov. 29, 1930, and the corresponding weeks in 1929 and 1928:

	Nov. 29, 1930	Nov. 30, 1929	Dec. 1, 1928
Wheat	4,790,022	9,101,197	8,262,280
Oats	2,102,642	4,410,141	413,116
Barley	370,691	954,575	2,190,928
Rye	2,112,588	2,937,232	1,867,487
Corn	722,533	337,324	360,277
Total	10,098,476	17,740,469	13,094,088

Oats Exports

The exports of oats from principal United States ports, as reported by the Chief of the Bureau of Statistics of the Department of Commerce:

Mos.	1930	1929	1928	1927
Jan.	362,000	681,000	615,000	406,000
Feb.	153,000	439,000	329,000	167,000
Mar.	221,000	500,000	447,000	222,000
April	132,000	346,000	376,000	845,000
May	115,000	503,000	453,000	3,207,000
June	29,000	245,000	70,000	1,462,000
July	536,000	247,000	98,000	525,000
Aug.	110,000	824,000	2,396,000	1,383,000
Sept.	13,000	1,059,000	2,291,000	632,000
Oct.	20,000	902,000	1,627,000	557,000
Nov.	713,000	794,000	271,000	
Dec.	146,000	984,000	376,000	
Year	6,609,000	10,480,000	10,053,000	

Total Wheat Visible

The combined aggregate wheat visible supply statistics in bushels, as compiled in Bradstreet's:

1930— week ending	U. S., East of Rockies	U. S., Pacific Coast	Total U. S.
Sept. 6.....	199,909,000	7,188,000	207,097,000
Sept. 13.....	207,617,000	8,133,000	215,750,000
Sept. 20.....	210,763,000	8,180,000	218,943,000
Sept. 27.....	213,804,000	8,407,000	222,211,000
Oct. 4.....	211,077,000	8,031,000	219,108,000
Oct. 11.....	211,158,000	7,341,000	218,499,000
Oct. 18.....	210,008,000	6,547,000	216,555,000
Oct. 25.....	207,767,000	6,367,000	214,134,000
Nov. 1.....	205,437,000	6,163,000	211,600,000
Nov. 8.....	205,202,000	5,420,000	210,622,000
Nov. 15.....	205,096,000	5,324,000	210,420,000
Nov. 22.....	205,000,000	5,156,000	210,156,000
Nov. 29.....	202,475,000	5,004,000	207,479,000

1930— week ending	Canada	Total U. S. and Canada, both Coasts (Broomhall)	U. K. 2 and afloat
Sept. 6.....	100,807,000	307,904,000	52,500,000
Sept. 13.....	120,871,000	336,621,000	49,400,000
Sept. 20.....	141,900,000	360,843,000	52,500,000
Sept. 27.....	148,288,000	370,499,000	53,200,000
Oct. 4.....	158,653,000	377,761,000	51,700,000
Oct. 11.....	161,986,000	380,485,000	52,100,000
Oct. 18.....	175,317,000	391,872,000	50,700,000
Oct. 25.....	177,002,000	391,136,000	52,700,000
Nov. 1.....	178,827,000	390,427,000	51,400,000
Nov. 8.....	183,545,000	394,167,000	55,000,000
Nov. 15.....	191,203,000	401,623,000	58,700,000
Nov. 22.....	195,840,000	405,996,000	62,200,000
Nov. 29.....	197,998,000	405,477,000	59,800,000

1930—	Total American, Canadian, afloat and British visible supply:
Sept. 13.....	386,021,000
Sept. 20.....	413,343,000
Sept. 27.....	423,699,000
Oct. 4.....	429,461,000
Oct. 11.....	432,585,000
Oct. 18.....	442,572,000
Oct. 25.....	443,836,000
Nov. 1.....	441,827,000
Nov. 8.....	449,167,000
Nov. 15.....	460,323,000
Nov. 22.....	468,196,000
Nov. 29.....	465,277,000

Contract Grain Stocks in Chicago

Contract stocks of wheat in public elevators in Chicago decreased 85,000 bu. last week; oats, 324,000 bu., and rye, 106,000 bu., while corn increased 62,000 bu. Details follow:

	Week	Last Wk.	Last Yr.
Wheat	7,041,000	7,126,000	12,414,000
Corn	332,000	270,000	61,000
Oats	1,888,000	2,212,000	361,000
Rye	2,983,000	3,089,000	3,230,000

Daily Closing Prices

The daily closing prices for wheat, corn, oats, rye and barley, in cents per bushel for May delivery at the following markets for the past two weeks, have been as follows:

	Wheat	Corn	Oats	Rye	Barley
Chicago*	80 1/2	78 3/4	38 1/2	47 1/2	49 1/2
Winnipeg	66 1/2	64 1/4	63 3/4	64 1/2	64 3/8
Liverpool	77 1/2	78 1/2	75 1/2	76 1/2	76 1/2
Kansas City	73 1/2	72 1/2	72 1/2	73 1/2	73 1/2
Minneapolis	74 1/2	73 1/2	73 1/2	74 1/2	74 1/2
Duluth	72 1/2	71 1/2	72 1/2	72 1/2	72 1/2
Omaha	73 1/2	72 1/2	72 1/2	73 1/2	73 1/2
St. Louis	79	77 1/2	77 1/2	79	79
Milwaukee	80 1/2	79 3/4	79 3/4	80 1/2	80 1/2
Chicago*	79 1/2	78 3/4	38 1/2	81 1/2	79 1/2
Kansas City	75 1/2	74 1/2	76 1/2	77	75 1/2
Omaha	72 1/2	71 1/2	72 1/2	74 1/2	72 1/2
St. Louis	80	78 1/2	75 1/2	77 1/2	80 1/2
Milwaukee	79 1/2	78 1/2	79 1/2	81 1/2	80 1/2
Chicago*	38	36 1/2	37 1/2	38 1/2	38 1/2
Winnipeg	30 1/2	29 1/2	29 1/2	30 1/2	29 1/2
Minneapolis	34 1/2	32 1/2	33 1/2	34 1/2	34 1/2
Duluth	35	33 1/2	34 1/2	35 1/2	34 1/2
Omaha	38	36 1/2	37 1/2	38 1/2	38 1/2
St. Louis	45 1/2	42 1/2	42 1/2	44 1/2	44 1/2
Milwaukee	44 1/2	42 1/2	42 1/2	44 1/2	44 1/2
Chicago*	46 1/2	45 1/2	44 1/2	47 1/2	49 1/2
Minneapolis	43 1/2	42	41 1/2	43 1/2</td	

Wheat Stocks and Consumption

The consumption of wheat indicated by the stocks, receipts and shipments in the 14 leading primary markets of the U. S. A. for the last three crop years:

	1930-1931	1929-1930	1928-1929
Stocks on July 1...	88,911,000	86,055,000	33,765,000
Receipts July 1 to Nov. 29...	301,484,000	300,768,000	359,989,000
Shipments July 1 to Nov. 29...	182,208,000	186,931,000	206,561,000
Stocks on Nov. 29...	136,846,000	140,279,000	109,406,000
Consumption July 1 to Nov. 29...	71,341,000	59,613,000	77,787,000

Rye Exports

The exports of rye from all United States ports, as reported by the Chief of the Bureau of Statistics of the Department of Commerce for each month, for years named, were as follows (not including rye flour):

Mo.	1930	1929	1928	1927
Jan.	25,000	186,000	489,000	795,000
Feb.	33,000	113,000	428,000	588,000
March	53,000	85,000	298,000	783,000
April	45,000	26,000	363,000	4,498,000
May	10,000	360,000	3,324,000	5,857,000
June	18,000	292,000	1,293,000	3,571,000
July	17,000	95,000	192,000	305,000
Aug.	18,000	464,000	691,000	1,316,000
Sept.	24,000	1,217,000	2,450,000	7,734,000
Oct.	40,000	558,000	3,074,000	6,398,000
Nov.	17,000	1,389,000	2,838,000	
Dec.	21,000	489,000	1,259,000	
Year	3,434,000	14,480,000	35,942,000	

Visible Supply of Grain

Following is the visible supply of wheat, corn and oats in public and private warehouses at principal points of accumulation at lake and seaboard ports and in transit by water, on the dates named, as compiled by secretary of the Chicago Board of Trade.

Wheat

	1930	1929	1928	1927
Aug. 16.	174,020,000	169,368,000	79,065,000	55,190,000
Aug. 23.	182,275,000	176,827,000	84,140,000	57,863,000
Aug. 30.	187,505,000	182,400,000	87,914,000	61,044,000
Sept. 6.	191,088,000	184,408,000	91,239,000	64,448,000
Sept. 13.	198,673,000	185,554,000	95,882,000	69,869,000
Sept. 20.	202,620,000	188,343,000	103,382,000	75,226,000
Sept. 27.	205,732,000	190,606,000	110,047,000	78,383,000
Oct. 4.	202,993,000	191,592,000	116,577,000	80,396,000
Oct. 11.	203,072,000	192,567,000	123,639,000	85,481,000
Oct. 18.	202,043,000	192,796,000	129,763,000	85,002,000
Oct. 25.	199,880,000	192,796,000	133,224,000	88,290,000
Nov. 1.	197,688,000	194,215,000	134,244,000	88,684,000
Nov. 8.	198,443,000	191,821,000	133,921,000	90,783,000
Nov. 15.	198,495,000	191,292,000	135,254,000	89,721,000
Nov. 22.	198,008,000	186,990,000	134,609,000	91,117,000
Nov. 29.	195,562,000	184,602,000	136,777,000	91,006,000
Dec.	6,191,241,000	182,489,000	113,101,000	88,813,000

Corn

	1930	1929	1928	1927
Aug. 16.	2,653,000	7,105,000	12,483,000	24,009,000
Aug. 23.	3,287,000	5,799,000	10,228,000	23,406,000
Aug. 30.	3,940,000	5,417,000	9,516,000	22,312,000
Sept. 6.	4,583,000	5,021,000	8,176,000	22,593,000
Sept. 13.	4,690,000	4,381,000	7,862,000	22,694,000
Sept. 20.	4,963,000	4,254,000	7,195,000	23,733,000
Sept. 27.	4,684,000	4,197,000	6,791,000	23,687,000
Oct. 4.	4,643,000	4,231,000	5,411,000	21,393,000
Oct. 11.	4,569,000	3,938,000	3,313,000	19,270,000
Oct. 18.	4,612,000	3,894,000	2,146,000	18,609,000
Oct. 25.	4,392,000	3,643,000	1,284,000	20,574,000
Nov. 1.	4,379,000	3,237,000	2,030,000	22,080,000
Nov. 8.	5,271,000	2,582,000	3,034,000	22,440,000
Nov. 15.	5,651,000	2,414,000	3,806,000	20,473,000
Nov. 22.	6,338,000	2,419,000	5,025,000	20,125,000
Nov. 29.	7,331,000	3,267,000	6,419,000	19,216,000
Dec.	6,975,000	3,864,000	9,670,000	19,363,000

Oats

	1930	1929	1928	1927
Aug. 16.	16,223,000	13,049,000	6,656,000	14,436,000
Aug. 23.	19,679,000	19,060,000	10,964,000	17,315,000
Aug. 30.	23,230,000	23,488,000	13,376,000	21,501,000
Sept. 6.	26,440,000	24,079,000	15,257,000	24,060,000
Sept. 13.	29,059,000	24,345,000	14,613,000	25,149,000
Sept. 20.	30,092,000	25,800,000	15,664,000	25,137,000
Sept. 27.	30,264,000	26,321,000	15,193,000	24,931,000
Oct. 4.	30,495,000	26,884,000	15,043,000	25,874,000
Oct. 11.	31,024,000	28,422,000	14,989,000	24,927,000
Oct. 18.	31,612,000	29,891,000	14,742,000	24,411,000
Oct. 25.	30,860,000	30,779,000	14,350,000	23,857,000
Nov. 1.	30,815,000	30,155,000	14,472,000	23,541,000
Nov. 8.	30,752,000	30,393,000	14,190,000	23,540,000
Nov. 15.	29,641,000	29,011,000	14,532,000	23,258,000
Nov. 22.	28,920,000	27,604,000	14,463,000	23,230,000
Nov. 29.	30,163,000	27,534,000	13,295,000	23,252,000
Dec.	29,158,000	27,501,000	12,263,000	22,329,000

Corn Stocks and Consumption

The consumption of corn indicated by the stocks, receipts and shipments in the 14 leading primary markets of the U. S. A. for the last three crop years:

	1930-1931	1929-1930	1928-1929
Stocks on Nov. 1...	3,062,000	1,599,000	1,052,000
Receipts Nov. 1 to Nov. 29...	16,401,000	17,503,000	28,400,000
Shipments Nov. 1 to Nov. 29...	8,017,000	8,427,000	12,890,000
Stocks on Nov. 29...	5,268,000	1,987,000	4,071,000
Consumption Nov. 1 to Nov. 29...	6,178,000	8,688,000	12,491,000

Oats Stocks and Consumption

The consumption of oats indicated by the stocks, receipts and shipments in the 14 leading primary markets of the U. S. A. for the last three crop years:

	1930-1931	1929-1930	1928-1929
Stocks on Aug. 1...	5,259,000	5,643,000	1,148,000
Receipts Aug. 1 to Nov. 29...	58,178,000	76,411,000	68,105,000
Shipments Aug. 1 to Nov. 29...	35,383,000	48,591,000	40,230,000
Stocks on Nov. 29...	24,848,000	21,645,000	9,972,000
Consumption Aug. 1 to Nov. 29...	3,206,000	11,818,000	19,051,000

World's Wheat Exports

The total export of wheat since Aug. 1, the commencement of the European crop year, compared with the same period in the two preceding years (Broomhall):

	1930-31	1929-30	1928-29
American	152,569,000	114,849,000	229,258,000
Argentine	15,201,000	73,439,000	38,383,000
Australian	23,648,000	14,792,000	17,520,000
Indian	4,016,000	288,000	288,000
Russian	58,592,000	.....	.....
Others	28,036,000	26,516,000	20,204,000
Total	282,062,000	229,884,000	305,653,000
Season	.....	610,452,000	914,862,000

World's Oats Exports

World exports of oats, since Aug. 1, 1930, compared with the same period in the two preceding years (Broomhall):

	1930-31	1929-30	1928-29
American	1,700,000	2,811,000	11,234,000
Argentine	12,800,000	2,953,000	561,000
Others	11,800,000	8,914,000	3,370,000
Total	26,300,000	14,678,000	15,165,000
Season	.....	66,297,000	62,998,000

World's Corn Exports

Total world exports of corn, since Nov. 1, 1929, compared with the same period in the preceding two years (Broomhall):

	1930-31	1929-30	1928-29
American	100,000	224,000	1,105,000
Argentine	18,406,000	11,962,000	17,576,000
African	2,577,000	2,347,000	2,280,000
Russian	102,000	145,000	8,000
Others	3,496,000	2,432,000	779,000
Total	24,681,000	17,110,000	21,748,000
Season	.....	270,562,000	270,604,000

Barley Exports

The exports of barley (bus.) from principal United States ports, as reported by the Chief of the Bureau of Statistics of the Department of Commerce, for each month, for years named, were as follows:

	1930	1
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Feeding Wheat in Many Sections

Due to the fact that there is a shortage of corn in some sections of the country and that a good many feeders are using wheat as a substitute, the question as to the available supply of these two grains, at the end of this wheat crop year, is one on which few grain and feed men care to hazard an estimate. In order to get a comprehensive view of the situation the Journal sent a questionnaire to a scattered list of its readers, and the following are extracted from some of the replies:

NO. DAKOTA

Carrington.—Some wheat is being mixed with oats and barley and ground but the amount so used is very small, not amounting to more than 2%. Corn is not being hauled to the elevator but mostly being traded between farmers and feeders.—Farmers Ind. Elvtr. Co.

Casselton.—Wheat is not being fed to any extent this year as we had a good crop of oats, barley and corn which will be fed first. Rye will be the next in line. There is not much of a demand for ready mixed feeds, money being too scarce to bring an increased demand. Farmers are using what money they can get to buy feeders.—Casselton Elvtr. Co.

Devils Lake.—Not any great amount of wheat is being fed here except that which is light weight and this is being fed to sheep. We will have plenty of oats and barley and they will be used as the farmers say they are too poor to buy ready mixed feeds and high protein supplements.—Farmers Grain Co.

Eastedge.—Practically no wheat is being fed in this locality.—W. B. Hibbard.

Hankinson.—No wheat is being ground for feed in this section. Very little ready mixed feed is used here, everything being prepared locally.—H. J. Schuster.

Kempton.—Some wheat is being fed here, being mixed with oats and barley, but the amount is not large. Ready mixed feeds and high protein supplements are not being bought as the farmers say they have no money.—Kempton Grain Co.

Medina.—Some wheat is being fed to hogs here, but the amount is not large.—D. Montz.

Sheyenne.—Very little wheat is being fed here and conditions are against its extensive use.—P. A. Peterson.

Valley City.—Farmers as a whole are not buying any mixed feeds but are feeding Durum wheat and rye mixed with oats for their horses and cattle and Durum wheat and barley to their hogs and cattle for fattening. I know more wheat is being fed than ever before, but it would be difficult to say just how much is being used this year.—A. L. Triebold.

NEBRASKA

Central City.—Wheat is being quite generally fed in this section, being ground and mixed with oats and barley. We have a surplus of corn and forage and that may account for the fact that there is a decreased call both for ready mixed feeds and high protein supplements.—T. B. Hood Grain Co.

David City.—Wheat is being ground and fed to hogs but not extensively due to the fact that we have a surplus both of corn and forage.—H. O. Schaaf.

Graff.—I can sell all of the wheat I can buy to our local feeders altho we have a surplus of both corn and forage.—B. C. Crittenton.

Holdrege.—Practically no wheat is being fed to livestock in this section due to the fact that we have a surplus of very good corn and also a surplus of other feed and forage crops.—J. M. Larson.

Kearney.—Some wheat is being fed here but not very extensively as we have a surplus of good corn and other feed and forage crops. There has however been a decrease in the amount of ready mixed feeds because of low grain prices, also a decrease in the use of high protein supplements.—J. P. Gibbons Grn. Co.

Neligh.—This is mostly a corn country. What wheat there is grown here being ground and fed locally. We have a 25% shortage in our corn crop but about enough of the other feed grains and forage. There has been a heavy decrease in the use of both the ready mixed feeds and the high protein supplements.—Neligh Mills.

Orleans.—Some wheat is being ground and fed to hogs but the amount is small compared to what the newspapers report from other sections. We have a surplus of corn and its quality was the best in many years, also a surplus of other feed grains and forage.—J. D. Richards.

Red Cloud.—Every one that has wheat is feeding it and it now looks as though we would have enough feed to carry us through, but nothing to ship. We have about 10% more cattle to feed than normal and that of course will take more feed. There is no increase in the use of ready mixed feeds, farmers largely depending on the usual home grown grains.—T. A. Kailey.

Roseland.—Present indications are that 20% more wheat than normally will be used as a feed in this section, much of this being ground and mixed with barley and corn. Present indications are for a decrease in the use of ready mixed feeds and the high protein supplements.—Roseland Grain & Supply Co.

Stanton.—All of the wheat we bought was resold for feed purposes. We have a surplus of corn and other feed.—Farmers Union Co- & Sply. Co.

Superior.—Seventy-five per cent more wheat is being fed this year than is normally the case. Part of this is due to the fact that we have a deficiency in both corn and other feed grains and in forage and have relative prices favoring wheat. There is an increase in demand for the high protein supplements to mix with local products, but there is no increase in the demand for ready mixed feeds.—Bossmeyer Bros.

Swanton.—At least 10 and perhaps 25% of our wheat will be ground and fed locally.—L. F. Ellermeier.

Wahoo.—Probably 10% of our wheat crop will be ground and fed to live stock in this section, altho we have a surplus of both feed and forage. There will apparently be no change in the market for either ready mixed feeds or high protein supplements.—John Dolezel.

Winnetoon.—No wheat is being fed here, but more barley is being used than ever before.—Seth Jones Grain Co.

OKLAHOMA

Ardmore.—Very little wheat grown here and all of it, and more, will be fed, mostly to poultry. There is also an increased demand for the ready mixed feeds as well as for cotton and linseed meal.—Ardmore Milling Co.

Enid.—Wheat is being used in chicken, hog and cattle feed, there being a deficiency in corn and in roughage.—W. B. Johnston.

Fairland.—We are selling locally all of the wheat that is coming in and it is being ground for hogs and fed whole to chickens. There is a deficiency in our corn crop and the quality is poor, and the demand both for the ready mixed feeds and for the concentrates is ahead of last year.—Gaines Bros. & Co.

Hobart.—No wheat will be shipped out unless the price gets higher than corn. We always ship in some corn, but 85% of the demand is being met with wheat.—Shepard & Son.

Kingfisher.—Large amounts of wheat are being fed and practically none coming on the market. Our corn was a short crop and it graded poor, while our forage is also short.—Kingfisher Mill & Elev. Co.

Marshall.—About 5% of our wheat crop will be mixed with oats and corn and ground for feed. Our feed grain and our forage crops were short and in consequence more cotton seed meal and hulls are being fed, than was the case last year.—J. C. Pearson.

Medford.—About 50 percent of our locally grown wheat will be fed right here as we had short feed grain and forage crops and farmers have no money to put into ready mixed feeds or concentrates.—W. S. Long.

Oklahoma City.—A recent check of our 27 country elevators showed 15% of the wheat being ground for cattle, hog and sheep feed.—General Grain Co.

Governor Dan Moody of Texas some time ago wired the executives of the Southern States to join in a plea to the public to "Buy a Bale of Cotton" at 15 cents per pound. It is now 11 cents. The Farm Board paid 16 cents.

Must Reduce Wheat Acreage 20 Per Cent

Chairman Legge told farm leaders on Nov. 24, that a 20 per cent reduction in wheat acreage, in order to make the tariff effective, was the only salvation of the wheat farmer. He said nothing about how 5,000,000 farmers who raise no wheat are to be saved, but presumably he feels that similar action all along the line is the only way out.

During the 10 years from 1920 to 1929, inclusive, the average wheat acreage has been 58,627,000 and a 20 per cent reduction would mean cutting it down to 46,902,000, which would be less than in any year since 1895. What would be done with the 11,725,000 acres thus released is not discussed, but some of them might be used for the growing of coffee, bananas and other tropical products, for things in this country would be hot enough for their production if any attempt was ever made to force wheat acreage reduction. In some sections nothing else but wheat can be successfully grown, and in some, every bushel that is produced is used locally, and to ask farmers in either of these to reduce, or to attempt to force them to reduce, would be resented in the warmest kind of a way.

As a matter of fact we are regularly exporting more than a hundred different agricultural products, and getting down to a domestic basis on all of them would soon make this country the most colossal weed patch the world ever saw. The whole idea is preposterous, and the sooner it is abandoned, the better.

The Soybean Situation

The final official estimate of the 1930 domestic soybean crop was 12,106,000 bushels as compared with 11,432,000 bushels last year. From the 1929 crop there was practically no unsold carry-over. Last year only 1,750,000 bushels were crushed. The balance of the crop was used for seed or fed on the farm. This year, however, we have an increased duty (3½ per pound) on soybean oil under the new tariff law, and it is, therefore, estimated that about 4,000,000 bushels will be crushed in order to take care of the requirements of the soybean oil consumers of this country.

The average annual consumption of soybean oil in the U. S. during the past ten years is 2,809,595 gallons. Practically all of this oil in the past has been consumed by paint, varnish and coated fabric industries at prices slightly higher than those asked for linseed oil. Soybean oil at present, however, is approximately 1c per pound below linseed, and on this basis there is a growing interest on the part of a large group of consumers in widely varying industries. For example, during the past two weeks soap manufacturers and edible oil refiners have purchased approximately 1,000,000 gallons. As it is only expected that a little over 4,000,000 gallons will be produced (one bushel of soybeans yields approximately one gallon of soybean oil), there is thus left available for consumption during the next ten months only about 3,000,000 gallons which is a quantity slightly larger than the ten year average consumption.

The soybean crop in the U. S. is a comparatively recent development. For a long time Manchuria has been the chief producer of this crop. The bulk of soybeans produced in the far East are used there for food. This year the Manchurian crop is reported to amount to 5,700,000 short tons compared with 5,300,000 short tons in 1929. When prices permit, considerable amounts of Manchurian soybeans and soybean oil are exported to Europe. However at present low prices the shipments have been very small. In fact, soybean oil is now scarce in Europe and prices are high compared with linseed oil so that the latter is replacing soybean oil for soap and edible purposes.—Archer-Daniels-Midland Co.

Residents of the villages of Dubki and Jelin in Russia are reported to have been massacred by agents of the government for failure to turn over the required amounts of grain.

Meeting of Farmer Elevator General Com'ite

[Continued from page 743]

Tuesday's Sessions

The morning and afternoon of Tuesday were devoted to working out the com'ite reports.

CHAIRMAN FREDERICKSON having been called to the meeting of the Farmers National Grain Dealers Ass'n, S. S. Beach presided temporarily.

B. L. Ewing read the following resolution from the legislative com'ite, which was unanimously adopted, in the hope that an amendment to the Agricultural Marketing Act would end the discrimination practiced by the Farm Board against farmers elevators who refuse to embrace the pool fallacy:

Report of Legislative Com'ite

WHEREAS, the Farm Relief law was enacted as an emergency measure to meet a condition that existed in the agricultural districts, the purpose of the bill being to immediately relieve a depressed condition then existing which condition was the closing banks foreclosing on farms and placing the land in the hands of large corporate interests, and

WHEREAS, the methods of applying the law have resulted in the establishment of mere merchandising agencies which have utterly failed to accomplish any benefit to agriculture or business, now

THEREFORE this conference urgently recommends such action by our national government as will in some measure at least assist the people of the agricultural districts to meet their pressing needs.

WE DEMAND such an amendment to our Agricultural Marketing Act as will make it mandatory upon the Federal Farm Board to recognize, with loans on grain, any group of Farmers Elevators operating within the state handling a minimum of 5,000,000 bushels annually, without a requirement by the Farm Board that the grain shipped from members of such regional shall be pooled when sold, provided that the loans from the Farm Board to the local elevators through such regional be protected by satisfactory security.

The following recommendation by the organization com'ite was then read and adopted:

Organization Com'ite Report

Your com'ite realizing the necessity of combining and mobilizing the economic power of the Farmers Elevators, recommend that the State Farmers Elevators Ass'n proceed to form co-operative organizations among the elevators of their states which will place them in a position to make suitable business connections in any markets available to them, and which will serve the best interests of their companies.

F. W. Stout, of the educational com'ite, will prepare a report after taking up the work of the com'ite with the other members by mail.

Adjourned sine die.

In Attendance

Among those present were: G. W. Anderson, Loda, Ill.; S. S. Beach, Hutchinson, Minn.; J. J. Book, Plainfield, Ill.; John S. Collier, Kankakee, Ill.; W. H. Cryder, Plainfield, Ill.; Arthur Dirst, Minooka, Ill., Mgr., Minooka Grain, Lbr. & Sply. Co.; E. G. Dunn, Mason City, Ia.; Arthur Elliott, Lindenwood, Ill., mgr., Lindenwood Co-operative Elevator Co.

W. B. Fleming, Bement, Ill., mgr., Bement Grain Co.; G. W. Fiddymont, Plainfield, Ill.; Theo. Frederickson, Murdock, Minn., chairman of the General Com'ite, and Pres. Minnesota Farmers Grain Dealers Ass'n.; Chas. Gingrich, Loda, Ill., mgr., Farmers Co-operative Grain Co.; J. A. Henebry, Plainfield, Ill., mgr., Plainfield Grain Co.; H. A. Henricks, Cerro Gordo, Ill., mgr., Cerro Gordo Coop. Grn. & Coal Co.; Chas. Holz, Buckley, Ill.; R. E. Jacobs, Triumph, Ill., mgr., Triumph Coop. Grn. & Sply. Co.

F. W. McLaughlin, Ashland, Ill., mgr., Farmers Elevator Co.; L. A. Markwalder, Cissna Park, Ill., mgr., Cissna Park Co-operative Grain & Coal Co.; Walter Manning, Plainfield, Ill.; V. L. Marks, Lake Fork, Ill., mgr., Lake Fork Farmers Coop. Elvtr. Co.; Lee L. Mellering, Cerro Gordo, Ill.; C. Oscar Merkle, Kempton, Ill., mgr., Farmers Elevator Co.; C. E. Miller, Piper City, Ill., mgr.,

Farmers Grain Co.; H. E. Morgan, Buckley, Ill., mgr., Farmers Grain Co.; Millard R. Myers, Western Springs, Ill.

J. R. Nation, Colon, Neb., mgr., Farmers Union Coop. Ass'n; R. B. Orndorff, Bloomington, Ill., sec'y of the General Com'ite, and vice pres. of the Illinois Farmers Grain Dealers Ass'n; J. W. Overacker, Danforth, Ill., mgr., Farmers Elevator Co.; W. B. Pogram, Clifton, Ill., mgr., Clifton Grain Co.; W. H. Perry, Lindenwood, Ill.; John Russell, Roberts, Ill., mgr., Roberts Grain Co.; Wm. F. Siemons, Del Rey, Ill., mgr., Del Rey Farmers Grain Co.; C. F. Steigle, Plainfield, Ill.; F. W. Stout, Ashkum, Ill., mgr., Farmers Elevator Co.; Paul Thielien, Bloomington, Ill.; Wm. Webb and John W. Wheeler, Plainfield, Ill.

Failures of the Farm Board

Address by J. R. Nation, Colon, Neb., before Farmers Elevator General Com'ite

Our farmers are not in sympathy with the Farm Board nor anything they have, so far, done or tried to do for us. The whole program has done us harm, and will continue to do us harm, we feel, just as long as they operate as they now are.

We object to five of the major efforts put forth by the Farm Board and their marketing agencies as follows:

1. We are opposed first, last, and all the time to the Government in business. We are not socialists.

2. The effort to peg the price at the top, bottom, or anywhere else is a boomerang.

3. Advocating that the Nebraska and Kansas farmer reduce wheat acreage makes us mad clear through. Wheat is our major crop.

4. The pooling by contract idea has cost us millions already. We are sick of it.

5. And now to hear Brother Alexander urge Industrial Farming gets our goat.

Government in Business.—Some folks try to tell us that the Government is not in business. They say these big million and multi-million enterprises are farmer owned and controlled. The Hall-Baker outfit in Kansas City cost, I believe, about three and one-half million dollars. Did the farmers buy it? Do the farmers own it? Do the farmers control it? No.

As I understand it, the Stabilization Corporation has bought and paid for one hundred million bushels of wheat. With what? Farmer money? No, with taxpayers money. Government funds put out by the Farm Board control these projects. In my opinion the farmers do not have half a million dollars invested in these grain marketing set-ups of the Government. They are Government financed and controlled by politicians. These government funds are being used generously and carelessly to put business men out of business, and to turn our marketing over to politicians, and their appointees.

The whole thing is Socialism. We farmers are smart enough to see that the next step will be to put Government money into production, and do farming on a big scale which we cannot compete with, and we are against it. It is un-American in every respect and in my humble opinion the law should be repealed, and the Farm Board members sent back home to go ahead and print newspapers, process and handle tobacco, distribute milk, and manufacture farm machinery, which they know how to do, and let us farmers alone. They don't seem to understand our problems.

This pegged price proposition I call a boomerang. They bought 60 million bushels in an effort to peg it around \$1.18 to \$1.25. The peg did not peg. You can't fool the law of nature—Supply and Demand. They piled up the 60 million bushels of wheat in the show windows, and the price went on down to the lowest point in twenty six years.

Then they pegged it again at 73c, and it is said, bought 40 million bushels more. What a mountain of wheat. It reaches to the skies. It has been a bearish proposition ever since the 60 million bushels were bought. It hung like a cloud over all the grain markets of the world, and the best judges in business now think that prices are 25 to 40 per cent lower on all grains than they would have been had it not been for this 60 to 100 million bushels of wheat piled up and held in the grasp of one concern.

England tried this very stunt when she had about all the rubber in the world. It didn't work. Everybody got busy producing rubber, and down went prices.

Cuba tried it and the Government bought and piled up about all the sugar in Cuba about two years ago. Down went the prices of sugar all over the world and remained down. The Cuban Government practically went bankrupt.

Brazil, producing two-thirds of the coffee of the world, thought she could control the price, and she piled up millions of pounds

and held them. That was a coffee cloud. Down went prices, and the Brazilian Government nearly went bankrupt, and it finally ended in revolution.

Canada tried about the same thing with her wheat pool. The Pool has gone bankrupt. The Canadian Government has had to take over the finances of the Pool and that episode has cost the farmers of Canada anywhere from 10 to 30 cents a bushel on their wheat.

I think it would have been better to have let our market down to the world prices a year ago and exported the 60 million bushels of wheat the Farm Board bought and still holds.

I take little stock in this argument that they averted a panic when they pegged it at 73c. That's pretty much political bunk. It didn't fool anybody much either, if we take the last election as a test.

This time they pegged wheat at the bottom. Oh, it might have gone down a few cents, but little farm wheat would have come to market at the bottom. It would have come right back, I think, to a higher price than it is now if the Government had kept out of the market. Why? Because now they have 100 million bushels piled up in the show windows. Everybody sees this big pile and so buys the minimum quantity. Everybody is scared to buy for fear of dumping.

Market rules and laws have been broken and disregarded, and the farmer pays the penalty both in taxes and a lower price for wheat. A few farmers got a price above the market last year, maybe a dozen in a community. It was all right for them, of course, but the rest of us paid for it. That wasn't right, and won't be repeated. You can't tax Peter to pay Paul and get away with it.

Pooling Idea Exploded.—The idea of a Wheat Pool so ably exploded now in Canada was exploded in Kansas several years ago. The contract with penalty has been tried without Government aid and failed. Farmers will not pay a penalty to any outfit that can't bid the price for wheat. The contract has been held to be binding by the courts, so the farmers have just quit signing contracts. It's too foolish. Now that honest and efficient grain men in Canada have made the most colossal failure the world has ever seen, it ought to be open season for wheat poolers everywhere. Every honest man who loves his country should go loaded.

Why do we oppose this hare-brained appeal to us to reduce wheat acreage? For many reasons. Wheat is our crop. That's what we pay interest, taxes, and operating expenses out of. If we reduce acreage, what will the farmer do in Indiana, or Dakota? Who can tell? If one farmer reduces acreage, his neighbor will probably sow more. There is no plan. Only a slogan. Well, man proposes, they say, but God disposes. The problem is too deep for me.

Only I know this. The Farm Board has no plan. They just argue for farmers to reduce acreage and nobody pays any attention to them. We can't. They're about as sound here, and as sensible, as they have been price-pegging, pooling, and hoarding the wheat.

Why not send the Farm Board over to Russia—with a one-way ticket?

Compulsory crop reporting by farmers, with forfeiture of free rural mail delivery for failure to cooperate, will be suggested to the Secretary of Agriculture and the Federal Farm Board by the Nebraska Agricultural Statistician, A. E. Anderson, as a means of improving the reporting service.—*The Auto-crats!*

Argentine corn is being offered to New York very cheap around 5c delivered. Duty 25c. This is much cheaper than our own corn. It will undoubtedly lessen the industrial demand for United States corn at the seaboard. However, freight rates are such that it probably will not be possible to haul Argentine corn into the interior States.

Finality of Inspection Questioned

[Continued from page 741]

them to another place for final preparation as provided in the statute. On account of failure of the inspector to comply with the statute in this respect, the report was inadmissible as an official paper.

"The certified copy of the analysis of the state chemist based on the inspector's report was inadmissible in evidence as an official analysis, due to the failure of the inspector to comply with the statute as pointed out in the preceding note."

Grain Market Conditions in Europe

Address by DR. RUDOLPH PATZIG before Grain Market Analysts Club at Chicago.

A purely statistical study of the European wheat situation reveals nothing that is not quite generally known to grain market analysts; and efforts to arrive at detailed or possibly more correct figures as to the amounts of grain in sight or in prospect impress one as irrelevant as a factor in the study of future price developments.

Analyzing statistical routine calculations of the last few years, one finds that incorrect estimates as to European crops or supplies have not been responsible for one striking feature, namely the miscalculation of European import requirements and the consequent obliquity of judgment as to prospective market developments in exporting countries.

European acreage and production statistics do not disclose any decisive trend over a long period of time, even if the figures beyond the period when war became an important influence, are taken into consideration. During the reconstruction period of 1920 to 1925, Europe has recovered her prewar position, since when both acreage and output have remained relatively steady, the changes in one country being about balanced by an increase or decrease in others.

Russia as a Factor.—Statistically, one of the most unsettling influences in the international merchandising situation has been the reappearance of Russia as a leading exporter. The disposition on the part of our economists not to believe in the possibility of that country attaining her prewar position in regard to exports has encouraged considerable negligence of this influence, supported by the difficulty of obtaining reliable information and the universal capitalistic depreciation of the communistic form of Russia's economic structure. If rightful attention is paid to the fact that the soviet government has been able to reconstruct agricultural productivity to an output in the last two seasons materially in excess of that under the czaristic regime, one should construe the present rate of Russian exportations as disappointingly small instead of being surprised at their enormity. The popular interpretation that these exports are not economically justified and are forced in order to secure money for the payment of imported agricultural implements, and that in reality, the large Russian cities are virtually facing famine during the coming winter, is of no statistical significance as long as individualistic capitalistic considerations are excluded as economic motives in that country. While in Europe, I was able to substantiate the numerous press articles circulated in this country, that Russia is encountering grave difficulties and fierce opposition in introducing collective motives for national productivity to substitute the eliminated egotistic-economic incentives on the part of the individual, and while it may also be stated that the ruthless and steadily increasing pressure upon the peasantry to carry out the collectivization program is expected, sooner or later, to lead to a collapse of the communistic experiment, the fact remains that strenuous efforts are being made by the soviets to establish a leading position in agricultural production and to export all available grain in order to create a positive trade balance with which to carry out the program of collectivizing agriculture and industry. But even assuming that the communistic regime will climax in a successful counter-revolution, re-establishing a capitalistic form of national life, there would be more reason yet to anticipate that Russia will continue to recover and in time will assume and perhaps surpass her prewar position in international trade.

A sustained enlargement in acreage and production has taken place in the leading exporting countries since the war, with an increase of 100 per cent in Canada and Australia and 25 per cent in Argentina and the United States. It would appear that maintained overproduction in exporting countries has been largely responsible for the collapse in prices. Yet, it is difficult to explain why the deflation of wheat values in all countries of the world to a level which hardly yields a profit to producers has failed to check the expansion of acreage which had been initiated by greatly enlarged import needs and rapidly advancing prices during the war. In fact, this increased production not only was continued but further augmented after the war

in the face of diminishing import requirements and falling prices.

While the readjustment of import needs and prices to normal appears to be but a logical development, the inefficacy of small yields and a short world production in 1929, of strengthening the price situation, is difficult to interpret in terms of supply and demand. Economists do not agree as to the cause of the paradox which is being witnessed: moderate crops and record low prices, nor does statistical analysis furnish a justification why prices should be as low as at the present time.

A study of international trade developments evidences that the economic process of readjustment of prices to supply and demand was greatly accelerated and carried beyond normal by political influences which constantly became a more depressing price making factor than the statistical weight of the apparent maladjustment of exportable surpluses to requirements. The profound changes in financial and political conditions which have taken place in every importing country have inserted an extraneous factor of great importance into the calculations of import needs. It has been primarily overestimation of prospective European demand which has unbalanced price ideas as had been applied to years when political conditions in Europe were more normal and practically disregarded in statistical computations.

Statisticians no longer arrive at price views of speculative value by calculating prospective consumptive needs from estimates of crops and their distribution. Besides the deviation in import needs due to other than statistical causes there must be taken into consideration the variations in the degree of financial desire on the part of exporting countries to dispose of their surpluses. The array of statistical price making factors has been complicated by numerous incommensurable influences which to rationalize has disclosed a new task for statistical study.

Low prices and big consumption go hand in hand, and with prices so low that they hardly yield a profit to producers, a great deal of waste will be permitted. Then, prices are on a feeding grain basis and consumption on farms promises to be on an unusually broad scale this crop year, the effect of which should be felt later in the season. Buyers, on the other hand, being extremely cautious at low prices, will not be inclined to stock up, and the amounts of grain and flour in the hands of ultimate consumers promises to be abnormally low. However, the most important of the potentially constructive factors, the extremely and continued low prices tending to cause a sharp reduction in acreage planted to wheat, has as yet shown no signs of asserting itself. The indicated reduction of 4½ per cent in the intended United States winter wheat acreage certainly must be construed as a poor response to the sensational low level of prices, coupled with the urgent appeals for curtailment. The failure of this natural economic pressure on producers to materialize, has greatly disappointed those who believed that the agricultural depression was primarily the economic result of world consumption not keeping step with production—a phase which would be automatically eliminated by its cyclic nature. This anticipated correction of unbalanced supply and demand by natural economic motives has been made ineffective or perhaps made subject to considerable delay by political and social influences. Had there been no urgent desire on the part of exporting countries to dispose of their surplus and of importing countries to keep it out, the burden of excessive supplies might have been absorbed at prices more profitable to producers and yet sufficiently low to discourage continuation of large acreage. The contribution on the part of importing countries to make the disappearance of exportable surpluses increasingly difficult has forced prices into a sustained downward trend—and yet, a constructive effect of the latter on acreage was not in evidence.

The steady lowering of the standard of living the world over has permitted the maintenance of large acreage virtually to a point where production becomes unprofitable, so that the disposition of producers to expand output, the steady fall in consumers' purchasing power and the 'sustained break in

prices have become ineffectual in eliminating the marginal high cost producers.

This point where prices obtained by farmers yield practically no profit, appears to be materially lower in periods of economic depression when the standard of consumptive needs tends to depreciate to the bare necessities of life. This process, together with the lower cost of living and the consequent lower cost of producing allows lower prices and a longer period of time to economically eliminate producers without a profit.

This to a large extent social feature of the present agricultural depression applies in particular to Argentina, Australia and Russia, where the producers' standard of living can be satisfied with less purchasing power than in the United States—a fact which has not yet been duly appreciated in regard to its depressive weight on our price developments.

Pool Failure.—This blockade, designed to compel consumers to purchase at prices dictated by the organized producers, has not only failed but has directly contributed to the present collapse in prices. By slowing down the process of deflation, these efforts were and in the case of the United States continue to be successful in holding prices materially above a shipping parity with importing countries. This price discrepancy, however, has stimulated organized agitation on the part of importers against North American holders, and also a tendency to enlarge production in other exporting countries in an endeavor to capture the anticipated diversion of European demand. Thus, governmental efforts to sustain a relatively high standard of living on the part of producers, have directly created a set of circumstances which accelerated the world tendency toward lower standards of agricultural profits.

While it is difficult to weigh the relative significance of each of the economic, financial, political and social forces, they still exist as features adverse to prices. Constructive developments are thus far not indicated from any of these influences, altho the depressive nature of each must be held subject to decided revision because of unexpected changes which can yet take place in statistical market fundamentals. The experience of the last few years has demonstrated how suddenly such statistical changes may occur and dissipate apparently established market surroundings. Such an unexpected variation in the present outlook, which is about the most depressing known, may be witnessed if indicated southern hemisphere production prospects are materially cut down.

The problem of creating an economic motive other than low prices for reducing acreage remains as yet unsolved and while the Argentine farmer hopes for rain and sunshine in normal measures, the American farmer can only hope for adverse conditions for his competitor as his only means of escaping a demoralized market situation brought about by the world-wide economic depression and made worse by the struggle of governments against the basic laws of supply and demand—a struggle which never as yet has failed to bring adverse results to those for whom it was designed to bring relief.

Summing up, the present agricultural situation calls for the solution of problems the setting of which, I believe, would involve the following studies:

1. A critical **statistical** analysis of the correlation of prices and acreage. If such correlation is definitely statistically demonstrated—I emphasize this because of recent statements by some economists that low prices directly tend to increase acreage to compensate the reduced money return of the output—the conditions under which this correlation may be expected to function are subject to considerable controversy.

2. An **economic** study of the variations in the financial, political and social status of nations in regard to their cause-and-effect function in international trade developments, and the conversion of their economic effects into commensurable statistical terms.

3. A **sociological** inquiry into the efficacy of the so-called "natural" economic laws in automatically correcting deviations from balanced supply and demand before such deviations assume a socially detrimental degree of extremity.

4. This leads us to the problem of organized attempts to temporarily suspend the working of economic laws by substituting group motives and actions for individual incentives—attempts which aim to halt and reverse an apparently fundamental economic trend before it has spent its potential force. The question whether or not efforts such as governmental stabilization of prices or appeals to curtail production are necessarily doomed to be futile, has thus far, not been solved in a convincing manner.

Concrete Slab Elevators Unsatisfactory

Silos have never provided satisfactory storage for grain. The requirements for grain storage are much more exacting than for ensilage. If ensilage gets wet it does not make much difference, in fact, ensilage is often "wet down" when it is put in store and salt is largely depended upon as a preservative. But try "wetting down" wheat, or shelled corn or oats, and see what happens. A grain bin must be proof against moisture, or the owner of the grain that is stored therein will suffer serious losses.

This fact is a feature in the failure of concrete slabs, such as are commonly used for building silos, when used in building tanks for storing grain; as it was in the failure of tile tanks, experimented with many years ago, but seldom seen today and not now built.

In the case of tile elevators, contraction and expansion of the tile and mortar in response to changing weather conditions and grain pressures inside the tank, caused cracks to appear and these cracks were open invitations to water in rainy weather. It has always been most difficult to keep a tile elevator weather tight. Treatment with waterproofing paints, either inside, or outside, or both, lasted only until contraction and expansion had another opportunity to get busy and re-open the cracks or create new ones.

In previous investigations owners of tile elevators have been relentless in their denuncements of tile for grain elevator construction, principally on the ground that it is not weather tight. Grain close to or against the outside walls of a tile bin often gets wet and depreciates in value.

The same experience has been the lot of some who have erected bolted steel tanks. The seams open under stress and in rainy weather moisture is admitted to the bin thru these seams and around bolt heads, causing damp spots in the grain. While these openings do not become as large as in the case of tile or concrete slab construction they are plenty large enough to keep a waterproof paint applicant in demand.

The lessons are repeated in the experiences of two farm elevator companies, one at Allendorf and one at Kiron, Ia., who tried building grain elevators with silo tanks formed of book-shaped concrete slabs, held in position by iron hoops encircling each tank where the slabs joined, as the storage units.

The concrete slab elevator at Allendorf was put up in the summer of 1925, and has had plenty of time to prove its merits. The comment of its manager is testimony to the same fault that is found in tile and steel. "It's a good house thru which to handle grain," he is reputed to say, "if you don't stop the grain in the house."

It is a 24,000-bu. structure, fitted with one leg enclosing a 12-in. rubber belt carrying 7x11-in. cups. Power is transmitted from a 7½ h.p. Century motor in the cupola thru a belt to a jack-shaft and a chain from the jack-shaft to the head-shaft. Outbound weighing is done thru a 50-bu. semi-automatic scale. Inbound weighing is done over a 10-ton truck scale in the driveway, on which is hung a Strong-Scott truck lift, and in which are three pit openings for varying lengths of trucks.

The basis for the structure is book-shaped concrete slabs, 2½ in. thick, 16 in. high and about 10 in. wide. One edge of these slabs is concave and the opposite edge is convex, the purpose being that the edges, when the slabs are set up on end, might dovetail into each other. This permits forming a cross

section of a cylinder with the slabs, by binding the ring set up with an iron hoop.

The four cylindrical storage tanks of the elevator, set three feet apart one way and six the other, are built up of section after section of these concrete slabs, set one atop the other and held in place by half-inch iron hoops, 16 in. apart and located at the points where adjoining sections of slabs meet. No mortar is used between the edges of slabs, or between the cylindrical sections, only the steel hoops hold the structure together. The tanks thus built up are 42 ft. high and 14 ft. in diameter, capped by conventional silo roofs.

A slab of concrete 2 in. thick and formed into a hopper bottom forms the foundation for each tank. The foundation under each tank is separate from that of the others.

Three of these tanks have no division wall, the fourth is made into four bins, by means of four strips of channel iron held in place on the inside by bolts connecting with the hoops around the outside. These channel irons are the anchorage for cross cribbing built up of 2x4 in. stock to form the partitions. A narrow sheet of metal, nailed at the bottom of the cribbing, where it joins the concrete hopped bottom of the tank, is supposed to keep grain in one bin from working into the next bin under the cribbing.

These four tanks support the frame structure of the 18 ft. iron-clad cupola, with its two floors for the leg head, motor and distributor, and for the 50-bu. semi-automatic scale. No foundation is under the driveway, nor under the office, except for a narrow strip of concrete at the approaches and the heavy planking of the driveway. The dump pit and the boot pit is a steel pan, five feet deep and set six feet into the ground so that the top of the pan is a foot below the grade level.

The manager was able to correct the fault of this pan, which should have its top edge a

foot above the grade level instead of a foot below it, by tiling around the elevator so that surface water would drain away. Prior to the tiling surface water would work into the pan and it was necessary to keep a pump going in the boot pit during rainy weather.

But he has had no luck in correcting the faults of the storage tanks. When the tanks were put up a thin coat of a cement preparation was brushed on the inside to prevent the passage of water, but this failed to keep it out.

When it was discovered that moisture worked thru the joints between the slabs an attempt was made to waterproof the outside. The sellers of the slabs and hoops sent a couple of painters who sprayed a mixture similar to whitewash on the outside. This failed to prevent the passage of moisture and is said to have done further damage because something in the mixture ate away the galvanizing on the hoops.

Two years later asphalt paint was tried. But due to the previous mixture which had been applied this failed to adhere properly to the slabs, peeling off in great patches.

Then it was discovered the slabs were not made of a dense, water-proof concrete. Water, coming in contact with one side, soon worked thru the porous concrete.

The light, concrete hoppers of the tanks have broken down in several places so that they have had to be patched and re-patched. In one of the tanks a section has cracked and is bulging outward.

Early in October a heavy rain at Allendorf left a foot and a half of water in the boot pit. Tracing the source of the water it was found to have seeped thru the tank walls, mostly thru the outside walls that had taken the full force of the rain. Little rivulets had worked thru the dust on the walls, bin-bottoms and thru the draw-off spouts into the boot, telling the tale of the passage of water thru the bin walls. In one bin the grain was wet for a distance of six inches from the outside wall.

Besides the tremendous cost of trying to make the structure fit to hold grain the



Unsatisfactory Concrete Slab Elevator at Allendorf, Ia.
[See Facing Page]

Farmers Co-operative Elevator Co. has experienced enough in losses to have built a good elevator. During the 1927 season three of the tanks were filled with oats and these were hedged to protect the margin. They were put into the elevator grading No. 3 White.

The fall season was unusually wet and there were several floods along river bottoms. During the first half of the following January occasion came to unload part of the oats to make room for handling other grain. The first couple of cars from one tank ran clear, then oats suddenly ceased to come from the tank. Investigation proved that the oats for a distance of from two to two and one-half feet from the wall of the bin, had become wet and the cold weather had frozen them to the bin wall. All the bins were unloaded and 5,000 bus. of the oats that were put into the elevator grading No. 3 White, were put on the market as Sample grade. The elevator lost in actual cash under what was paid for the oats \$1,380, when the grain should have produced at least that much profit.

There can be no argument in favor of silo construction for grain storage. It is obvious that joints unprotected by mortar cannot prevent the passage of rain.

Kansas-Nebraska Dealers Meet at Fairbury

[Continued from page 754]

Brown, Chester; J. N. Campbell, Omaha; C. B. Callaway, Fairbury;

L. L. Davis, Reynolds; C. F. Ernst, Gilead; W. M. Eigenberg, Diller; W. A. Fellers, Chester; H. E. Foster, Ellis; Erwin Goodsen, Helvey; W. E. Grogman, Kansas City, Mo.; Ed Gruber, Byron; J. M. Hammond, Lincoln; H. D. Harding, Kansas City, Mo.; W. H. Hinkle, Ohiowa; Leo Hays, Gilead; J. H. Huyck and Geo. Rose, Morrowville, Kan.;

E. A. Lucke, Omaha; W. L. Lea, Fairbury; John Myers, Hollenberg, Kan.; Geo. Patterson, Steele City; J. G. Page, Crete; Elmer Ray, Hebron; F. E. Roth, Lincoln; Erwin Schoenfeld, Deshler; Otto Schnuelle, Harbine; Ed Sanford, Byron; G. M. Shortridge, Gilead; W. A. Spicer, Stoddard; B. A. Simpson, and R. E. Trump, Beatrice; Chas. Willig, Hebron.

Competitive Wheat Market Best for All

By TED BRANSON

Except for gold there is no commodity in commerce so fluid as wheat. It goes anywhere and may come from anywhere and the slightest variation in prices or in freight rates frequently determines its destination. When wheat is delivered at a country elevator in Kansas no one can tell when or where it will be consumed. It may go to England or Costa Rica, to Paris or Rome. Delivered it has become a part of the world supply. There is, in fact, that vast sea of wheat supply, hundreds of millions of bushels. The wheat of Kansas, of the whole United States, is part of that world sea of wheat. Like the drops of water in the sea, every bushel exerts its pressure on its neighboring bushels and the pressure spreads and equalizes throughout the whole mass.

It is thru the wheat market of the world that the pressure of all this wheat is equalized; this market is world wide as widespread as is the production and consumption of wheat and it exists wherever wheat and flour are purchased and the agreed price paid.

PRICE.—In this world market, what sets the price? We realize well now, that it is not accurately or soundly set by any wheat pool or Farm Board. Two economic factors make that price: producers' supply and consumers' demand. Producers must sell low enough to dispose of their supply. Consumers must pay enough to insure their wants being filled. Every event the world over that has any bearing upon the price of wheat, the demand for it, the production of it, or the ability of consumer to pay, is registered in the market. Before you can calculate what effect a fluctuation in exchange will have on the demand for wheat in France or Italy, increased or decreased wheat buying has taken place.

One may forget that the price of silver has anything to do with the price of wheat, but there are some merchants who know that fall in silver means decreased buying

power in China. There flour orders are cancelled, their wheat again goes on the market, and the effect of the change is registered before most people know that the change has occurred.

Labor troubles in nearly any land mean increased buying. A dockers' strike in Australia is likely to hold up wheat shipments, but, while you may never hear of it, someone whose business it is to know buys some United States or Canadian wheat on that account. It is only as the world's forces which play on world prices act and react on each other as buying and selling proceed in the market that the price which is the result of these forces is reached.

HIGH PRICES STIFLE CONSUMPTION.—As Pres. Herbert Hoover stated when Sec'y of Commerce—"High prices stifle consumption. The consumer at once seeks every device to get larger use out of a smaller quantity, and he turns consciously or unconsciously to the use of substitutes." We need only to glance at the foreign wheat situation today to be convinced that consumers will willingly pay a much higher price under open market competitive conditions than when they suspect any artificial measures are being used to enhance prices against them. We cannot afford to encourage efforts to impose our will in respect to prices upon consumers. We have had too clear a demonstration of the reaction of consumers to such ideas and the defensive measures they can bring into play.

We who live in a wheat growing nation must fully realize that no matter how praiseworthy may be the desire to get a high and remunerative price for American Farmers, that if we are going to grow and to continue to grow wheat for export we must be prepared to sell it in the world's market—and in doing so meet the world's competition in price. If we want to stay in the business we must also realize that no government, or combination of governments, no pool or combination of pools, no matter how prices may be temporarily affected, can get us a price above what the world's competitive markets will pay.

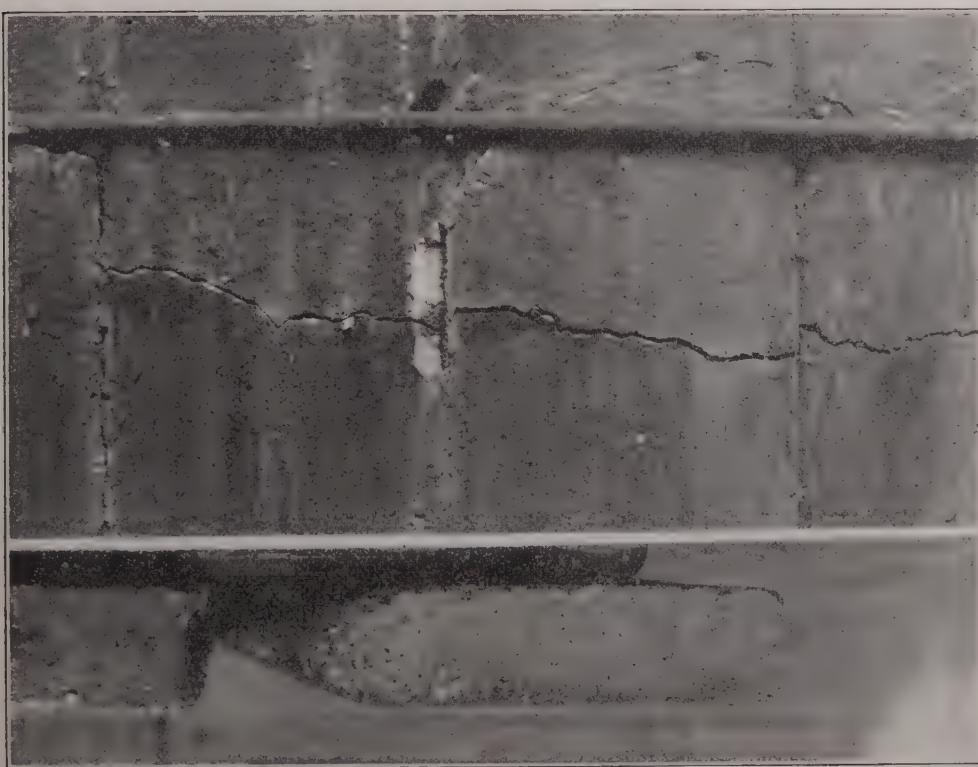
COMPETITIVE MARKET.—So long as we maintain our competitive market, free from artificial influences and restraints, we can depend upon buyers. So long as buyers come to world market for supplies, and bid against each other, we can depend upon establishing the best available prices under any given condition—on only such a market—without the far-reaching interference of any politically conceived Farm Marketing Board will we be able to cultivate and to regain the good will and valued patronage of the many consumers of our wheat.

"Eat More Bread" Propaganda

Many suggestions have been made in recent weeks, having for their aim a larger domestic consumption of wheat, a majority of them simply consisting of the adoption of some such slogan as: "Eat more bread," or "Eat one more slice."

The power of suggestion sometimes has a decided influence upon our actions and it is of course possible that the adoption of either of the above slogans and its constant repetition in the newspapers and magazines as well as on the screen and over the radio, would result in some increase in the use of bread. It would seem, however, that far greater results would follow the making of a better bread, and then of forcefully telling the consumer about it.

Bread is the cheapest food we have. As a matter of fact, it is too cheap and the effort should be to see how good the loaf of bread can be made, and how attractive instead of how cheap.



Below: Joint Between Two Slabs. Above: Three Cracked Concrete Slabs and Retaining Rod at Allendorf, Ia., Elevator.
[See facing page.]

Recent Developments in Moisture Testing Apparatus

(From an address delivered at the annual meeting of the Chief Grain Inspectors, at Chicago.)

With the knowledge that the presently available choice of dielectric machines will not service, our undivided attention was given to the study of the Tagg-Heppenstall moisture meter.

The instrument consists of two parts—a resistance measuring box, calibrated in arbitrary units to indicate moisture content, and a highly insulated pair of geared, corrugated rolls between which the wheat passes while its resistance is being read. The electrical circuit includes a sensitive galvanometer, an Ayrton shunt, an adjustable resistor, two standard resistors, the insulated rolls, and a dry battery of five 22½ volt units.

The Ayrton Shunt is not divided on the decimal system but with factorial steps of three, so that each contact of the dial switch beginning with contact A gives $\frac{1}{3}$ the galvanometer deflection of the dial next to the right.

The geared roll feature of the Heppenstall device is most unique and important, as in there lies the secret of the effectiveness of the apparatus.

In previous attempts to use electrical resistance values as a means of determining moisture content, standardized rods usually of brass were used as contact points. Such electrodes were pushed into the mass of grain in a jar to a uniform depth, and at a definite space apart, and electrical resistance readings made. Serious errors of reading crept in, as it was soon found that it was not possible to have always the same pressure of grain between the two rods. Again, with the rod-shaped electrode, especially with high moisture content samples, polarization took place, with subsequent errors of determination creeping in. Leakage of the current from the container to the galvanometer was also extensive.

In the Heppenstall device these three significant sources of error have been almost entirely eliminated. The rolls, as I have just said, are corrugated, this makes for a seizing of the kernel and holding it tightly in place for the duration of the test. One of the rolls is on an eccentric bearing. By means of a lever on the side of the box, the one roll can be moved, so that the spacing between the rolls can be accurately adjusted to very fine limits. Permanency of adjustment is accomplished by means of a set-screw device on the side of the box. This roll spacing is important as it controls the pressure applied to the wheat as it goes thru, making it uniform within very reasonable limits from sample to sample. The correct roll spacing will vary from cereal to cereal, and in the instance of wheat, a roll spacing of .040 inch has been determined as the most reliable, whereas, for rye it is .035 inch; for rice .025 inch, and for grain sorghums .040 inch.

The operation of the device is simplicity itself. The meter box and roll-electrode device are connected regardless of polarity. The assemblies unit is first set in balance by turning the switch on the panel board to the position S. 90 volts of current are now passing thru the apparatus.

Next place about 50 grams of wheat in the hopper of the roll electrode, and seize some of the kernels by giving the handle a quarter turn. The galvanometer needle will register. Turn the handle of the roll electrode with the right hand and with the left hand at the same time advance the switch on the panel board from the dial A to that

dial where the galvanometer needle oscillates between 15 to 40 degrees. Now increase the speed of revolution of the rolls until the needle of the galvanometer rests at a more or less constant position. Note this point and also the letter of the terminal on which the switch is resting. Let us say it is F 22. Consult the chart at the point F 22 and note the moisture. What has been done is this—the 90 volt current has been interrupted by means of the grain passing thru the rolls, and the machine has again been brought into balance by means of the dials and galvanometer reading.

Unfortunately electrical measurements are influenced by heat, to a noticeable degree. In fact with wheat the rapidity with which electrical resistance decreases as temperature increases is quite remarkable, and greatly exceeds that occurring in most substances. The resistance at 40° Fahrenheit is 18 times that at 75° F. so that before a final moisture result is known it is necessary to note the temperature at which the test has been made, and make corrections for the influence of temperature. It has been determined that the change in temperature of one degree influences the moisture test of wheat by 0.05 per cent.

Finally, in order to provide uniformity of expression of the results amongst different operators a definite point had to be selected to record the results. Among laboratory operatives this is usually 77° F. or 25° C. So that in making a final audit of the moisture percentage, for every degree above 77° F. 0.05 per cent is deducted and for every degree below 77° F. 0.05 per cent is added. This procedure may seem rather complicated at first, but after a few trials becomes routine.

Kansas-Nebraska Dealers Meet at Fairbury

Members of the Nebraska-Kansas State Line Grain Dealers Ass'n held their monthly meeting at Fairbury, Neb., Nov. 14, as the guests of Harry Barrett and Charles Callaway. Following a dinner attended by nearly fifty, the regular meeting was held. About twenty others came for the business session.

The principal speakers of the evening were H. A. Butler, Omaha; J. N. Campbell, Omaha; E. L. Brown, Chester; and C. L. Aller, Beatrice.

H. A. BUTLER, who is pres. of the Grain and Feed Dealers Nat'l Ass'n and head of the Omaha Grain Exchange, spoke on conditions in the cotton growing districts of the south, as well as present unfavorable conditions among grain growers, and described the present marketing act as unconstitutional.

J. N. CAMPBELL, sec'y of the Nebraska Grain Dealers Ass'n, spoke on the policy of the Federal Farm Bureau with regard to its effect on independent dealers, stating that it has not dealt with the real problem of creating world-wide markets for United States wheat, and that it has been used for political purposes.

E. L. BROWN, pres. of the Nebraska Grain Dealers Ass'n, pleaded for harmony among grain dealers. He stated that success depended on having one strong organization of grain dealers in the state.

C. L. ALLER, who is general manager of the Black Bros. mills at Beatrice, gave a short talk, stating that in his opinion, the Federal Farm Board is entering into the processing of grain.

A very interesting motion picture was shown by Mr. Brown and E. A. Lucke, of a hunting and fishing trip which they took down the Solomon river in Idaho.

Among Those in Attendance Were: C. L. Aller, Beatrice; J. F. Buntmeyer, Deshler; F. B. Beinhoff, Crete; R. R. Benfer, Daykin; Hugh Butler and F. C. Bell, Omaha; E. L.

[Concluded on page 753]



The Tagg-Heppenstall Moisture Meter.

Maintaining the Quality of Grain in Store

Address by EDGAR S. MILLER

It is not probable that any man who has wrestled with the problem over a period of years need be told of the conditions requisite to the maintenance of quality of grain in storage. Whether the term, "aeration," is used or not, the fact that both the temperature and moisture content must be controlled, if damage and spoilage are to be prevented, is quite generally accepted.

Moving air is the only practical vehicle by which both heat and moisture can be affected. Air has so long acted as the chief medium for the conveyance of both that man has come to regard it as such.

Stagnant, or "dead," air is perhaps the poorest conductor of heat of any with which we are familiar. Very largely, the heat-insulating properties of any body are dependent upon the quantity of air entrapped in the interstices of that body. Wool has been found an excellent insulator, and is extensively used for clothing for that reason. Cork is also a good non-conductor of heat. However, if you will investigate, you will find that these heat insulators contain a large quantity of air.

The kernels of grain hold considerable air in the interstices between their particles, and are therefore themselves poor conductors of heat. But the most significant factor in determining the conductivity of a mass of grain is the air held stagnant in the interstices between the kernels.

That heat transference to and from the air surrounding a tank of grain should be extremely slow, should not be surprising, nor should one wonder that a uniform condition of moisture and temperature does not ordinarily exist in the large tanks used in modern storage. Zero weather on the outside of the walls of the bin can affect the grain on the other side for only a short distance, for that near the center is more effectually insulated against heat transference than is any pipe carrying steam or freezing brine.

"Sweating" on Bin Walls.—A fluctuation of temperature outside of the bins does, however, produce a serious effect upon the grain next the walls and at the top. When this outside air is colder than that within the enclosure, heat, but not moisture, is lost rapidly from the strata of grain and air nearest the outside. Since there is no circulation, and because both air and grain are excellent heat insulators, most of the heat loss will occur in these strata. This frequently results in a temperature low enough to cause condensation, or "sweating," on the inside of the walls, just as moisture gathers on the outside of a glass of ice-water set in a warm room.

This condition is often noticeable at the top of a bin or in a car of grain. It is worse there than at the sides because the moisture constantly given off by warm grain seeks the area of least resistance, urged by the vapor pressure generated by heat. The crust of extremely damp, and often very hot, grain at the top of the bin or car or boat is due to this condensation of vapor and the subsequent absorption of the liquid by the grain. Not infrequently kernels also adhere to the inner walls of bins, for the same reason, just as flour stored in glass jars will sometimes crust on the inside of the glass, often absorbing water that originally resided in the interior of the mass to an extent sufficient to cause mustiness.

Thus, while a condition of non-uniformity is likely to develop in a mass of stored grain left standing for any considerable time, the most significant feature of the situation is the nature of this condition. While heat residing in or generated by the grain resting at some distance from the walls is conducted thru the stagnant air very, very slowly, moisture, originally contained in these kernels, is readily conveyed to the outer strata, which may become quite wet, as has already been mentioned.

Spoiling of Relatively Dry Grain.—Odd as it may seem, it is still perfectly possible for a portion of relatively dry grain to spoil. This is all the more remarkable, and all the more important, because the phenomenon is most likely to be observed in late winter or early spring.

As an example, suppose a 20,000-bushel tank were filled with wheat moisture content of which was uniformly 12%. The temperature of the grain and of the air is, say, 90 degrees. At this temperature the water

within the kernels will have a tendency to vaporize, and a certain "vapor pressure" will be created. This will finally result in an equilibrium of pressure within and without the kernels, and the air in the voids will receive vapor until this equilibrium is established.

We will now have about one-third of the volume of the bin filled with heavily saturated air, the temperature of which will not fall much below 90 degrees until heat is lost. But as the out-door temperature decreases, heat will pass thru the walls and roof, and some of the vapor in the air will be condensed.

It is well known that the volume of a liquid is only about 1/1600th of that of the vapor from which it is condensed, so we may logically expect an area of extremely low pressure at the point of condensation. If vapor-laden air did not move into this zone, a partial vacuum would exist; but the mixture of air and vapor does move in, providing more vapor, which will in turn be condensed and absorbed by the grain.

It is not uncommon for a small percentage of the kernels to increase in moisture as much as 6% or 7%; and while this water may have come entirely from the center of the bin, and the grain there may be correspondingly drier, the wet kernels may easily spoil and contaminate others, even though the average moisture content of the mass remains constant.

Naturally, such grain as adheres to the walls, because of its wetness, often remains there when the bulk of the bin's contents is withdrawn. Of course heat will be generated, and even in very cold weather local spots may remain warm enough to make it very comfortable for weevil and other insect pests.

The remedy for all this is thorough and positive aeration. Keep the air within the voids moving, and it is no longer a good insulator. While heat is conducted from particle to particle of still air very slowly, the moving of these particles from one place to another offers one of the most efficient means of transferring heat by convection.

Thus the heat contained in the grain at the center of the bin will be carried to the walls so rapidly that no localized cooling to the point of condensation can occur. Moreover, since the air receiving the heat and the products of combustion (or respiration) is continuously driven from the bin and replaced by fresh air, a condition of uniformity of both temperature and moisture can readily be obtained.

Insect Infestation.—It is not hard to understand how insects withstand zero or sub-zero weather under the old methods of grain handling, but it is difficult to believe that adult, larvae, or egg could long live if persistently exposed to even freezing temperatures. And when it is remembered that such temperatures are not uncommon at night quite early in the fall in much of the grain belt, it would appear that dependable aeration at such times should do much to relieve the situation.

Where infestation is extensive enough to demand the use of an insecticide, positive aeration of the grain in the bins offers an ideal means for diffusing the lethal gas to every kernel and to every nook of the bin. Under such conditions it would be advisable to heat the air, since it is known that any fumigant is much more effective at temperatures above 85 degrees. This is probably due to the increased activity and the consequent necessity for increased respiration on the part of the insect. This theory, however, seems to indicate that little need be feared when the temperature of the grain is lowered immediately after harvest. If the insects can be kept inactive until freezing weather comes, it is not unlikely that fumigation will be less of a necessity.

Without doubt, the greatest failures of the past were due to the lack of accurate knowledge concerning the relation of pressures and velocities to the resistance offered by columns of grain of varying height. Thorough distribution is also an important phase of the problem, for it is obvious that each kernel must be treated exactly as are all other kernels.

Problems Solved.—Provision for securing exactly the same velocity at each point of discharge had to be made, and means for insuring the maintenance of pressure had to

be provided. An air-moving device capable of producing a positive pressure exactly suited to the existing requirements offered a considerable difficulty, for a pressure too high had long ago proved unsuccessful.

A fan cannot be depended upon for positive though varying pressures, and a conventional compressor is wholly unsuited to the demands of the case, largely due to its inefficiency, particularly at comparatively low pressures.

The use of high-pressure air expanded to the pressure required brought disaster in the form of dew-point temperatures and condensation at the point of release, resulting in wet grain at the bottom of the bin, and an apparatus especially adapted to the needs of the situation had to be devised.

Since pipes of various lengths and with the same blast area offer varying frictional resistances, it is essential that a system of co-ordinating the blast area of the outlet diffusers with the resistance offered by the pipe from the converter to the point of release be worked out for each installation, in order that even distribution, without expansion, be assured.

It was necessary to devise a meter for indicating the exact volume of air passing into each bin, and to provide means for introducing fumigant, either in the form of a gas or a volatile liquid. An efficient air-conditioning unit had to be provided, though this was not difficult, for such have now reached a point closely approaching perfection.

Most difficult of all was the design of the internal conduits and diffusers to insure them against the tremendous "pull" of a column of grain 100 feet high, or more, in motion. This was accomplished by calculating all of the stresses encountered and employing a liberal factor of safety.

Aeration of grain in bins is not a new idea. However, a system that will actually accomplish the results desired, economically and dependably, with almost no attention by the operator, is new. That its adoption by the grain and milling industry generally is inevitable appears a logical conclusion, for its economical value is tremendous.

Farmers National Grain Dealers Ass'n Holds Annual Meeting

The delegate body representing the state farmers grain dealers ass'n and known as the Farmers National Grain Dealers Ass'n held its annual conference at the Fort Dearborn Hotel, Chicago, Dec. 1 and 2.

W. C. Horn of Sandusky, O., was elected pres. and L. E. Webb of Dodge City, Kan., vice pres. The board later chose W. H. Thompson of Ft. Dodge, Ia., as sec'y in place of John Shorthill, who has resigned to go with the Farm Board subsidiary known as the Farmers West Central at Omaha.

The resolutions adopted thanked Mr. Shorthill for his many years' work as sec'y and commended the staff of the official publication.

Congress was urged to speed waterway improvement.

A plea was made for an increase in the business from each ass'n to increase the revenue of the National Ass'n.

For Local Control of Elevators

RESOLVED, that we endorse the principle of voluntary co-operative marketing with local, terminal and national sales agencies, so long as the local companies are privileged to retain their local ownership and control.

For Payment of War Claims to Elevators

WHEREAS, by Joint Resolution, approved by President Coolidge on the 4th day of March, 1929, Congress has directed the audit and payment of certain claims for interest and insurance growing out of a contract made by the United States Grain Corporation; and

WHEREAS, there is now pending before Congress a further joint resolution providing in effect that in the audit and payment of these claims the accounting officers of the government shall accept the weekly reports of the elevators now in the possession of the United States Government; and

WHEREAS, such resolutions contemplate repayments to the elevators of divers sums of money paid by the elevators, for the government upon its written contract to repay the same; now, therefore, be it

RESOLVED, that the ass'n herewith earnestly urges the immediate adoption of the pending resolution.

How to Read the Weather Map

By C. A. DONNEL, Chief Meteorologist of the Weather Bureau at Chicago, before the Grain and Feed Dealers National Ass'n

The basis of a weather map is the simultaneous observation of the weather over a wide area. Observations are taken in the United States and in Canada, two times a day, namely, at seven a. m. and seven p. m., Central Standard Time. An observation of the weather consists of reading the barometer, noting the temperatures. We note the wind direction and its velocity; we measure the rain or snow, if any has fallen, note the sky with reference to its cloud. Ten different types of cloud formation are noted. We note direction of movements, whether they are moving fast or slow. All these elements go to make up a weather report. If we could have a bird's-eye view of North America, you would see at least in the United States and in Canada, about 250 men, I think perhaps there are two or three women, though, engaged in making these observations, every morning and every evening, twelve hours apart.

At the forecast centers these reports are received in from thirty to forty-five minutes after the observations have been taken. In other words, at the Chicago forecast center, which is the forecast center of the Weather Bureau for the North Central States, we have here in this office every morning by 7:30 eighty per cent of these reports which have been taken about forty-five minutes previously.

These reports are sent in coded form. There is no purpose in secrecy there. It is simply to save the taxpayers some money. I am going to give an illustration of how that is done. I have a sample report from Amarillo which reads as follows: Amarillo sanity merry bulsenite warfare pamaz.

Translated, that report indicates the barometer reduced to sea level, 29, and the temperature of the air 66. The state of the sky cloudy, the wind direction south. The highest temperature within the last twelve hours, 70, the wind was moving at the rate of ten miles an hour, .84 of an inch of rain had fallen in the last twenty-four hours. Warfare indicates the occurrence of thunder storms, and Pamaz, a word which has only recently been added to our reports, only since July first, that is used in connection with giving information about the visibility of the ceiling. Pamaz translated indicates that the ceiling was unlimited and that the visibility on the scale of nothing to ten, was fine.

Making the Map.—These reports are entered on the manuscript maps by various clerks assigned to do that work. There is a main chart, we call it for short, Map A. We have entered on Map A practically all the information that is telegraphed. Auxiliary charts are also used. These consist of a barometer chart that indicates the pressure changes in the last twelve hours. The temperature change chart showing the temperature changes in the last twenty-four hours. We also have a chart giving the direction and velocity of the wind at the various elevations along for the use of aviation and in some centers they make a cloud map. We don't make that. We enter the information relative to clouds on the main weather map, Map A.

The solid lines are isobars. They indicate the pressure of the atmosphere to the nearest ten hundredths of an inch. We have indicated at the end of each line the actual pressure.

It is necessary, owing to the fact that our stations of observation are at various levels, of course, above the ocean, to reduce the barometer to sea level; otherwise the observations would not be comparable at all. So we have reduced the results to sea level.

I make 30.6. What does that mean? That means that the pressure of atmosphere is equal to a weight of mercury equal to 30.6 inches high. That is the weight of air. We don't know how high the air extends; perhaps two or three hundred miles. Certainly it would be very thin if it does extend that distance. But there probably is air up there at two or three hundred miles. But the weight of that air from aloft is the equivalent of 30.6 inches of mercury.

The heavy blue lines are isotherms, lines of equal air temperature. We have a shaded line showing the precipitation. The symbols show the character of the weather here,

clear, cloudy, partly cloudy, snowy, and perhaps rain.

After the map is completed, we have here before us, of course, a picture of the actual occurrence of the weather, at the time of observation. We should have indications of high and low pressure areas. All of our weather in the United States, and perhaps most of the rest of the world except the tropics, is controlled mainly by these moving highs and lows. They have two different kinds of movements. There is internal circulation around the high and low that should not be confused with the motion of translation, of the high and low itself. In connection with the low, the air circulates, as you see in a counter-clockwise manner. It does not flow directly toward the center of the lowest pressure, but usually in a sort of a spiral fashion, inflowing spiral manner. In a high, the air outflow, of course, is outward, in a spiral form. That, of course, is in a clockwise direction.

In addition to this internal circulation, the whole high and low system usually has an eastern trend. That is one of the cardinal principles in forecasting the weather, the fact that weather movements are largely from west to east. If that fact were not true, weather forecasting would be a still more difficult undertaking, but the general circulation of the atmosphere carries these highs and lows to the eastward. I do not want to have you infer that these lows and highs take a directly eastward course—that is not true at all. Usually it is a more or less circuitous movement, but eventually the highs and lows do reach to the eastward.

Usually a low pressure area is associated, of course, with stormy or cloudy weather, whereas a high pressure area has the opposite characteristic, usually a region of fair weather, not usually much wind movements, and temperatures below normal, at least on the eastern side. So, it is the movement of highs and lows that gives us our weather.

A cyclone is a large general storm, as you see there. The large general lows cross the country every two or three days, and I may say, there is a rather regular sequence in the passage of highs and lows. Of course, it isn't so regular that we are absolutely assured that if we have a low to-day that in two or three days we will have a high, but I can say much of the time there is enough of a sequence in the movement of highs and lows whereby one can use that information with considerable profit.

A hurricane is a storm that develops over the tropics, usually north of the tropics. I don't mean to infer that it is on the Equator, but usually in the Northern Hemisphere hurricanes develop ten or fifteen, sometimes twenty degrees above the Equator. The West Indies hurricanes develop and move northwest or until they reach the Tropic of Cancer, and then they recur, and sometimes are brought across the Gulf of Mexico and wreak their destruction over the coast, such as the Galveston storm several years ago. In a number of cases the track of the hurricane reaches the Coast of Florida. It may move over the Bahama Islands and move northeast.

Surrounding pressure conditions have a lot to do with the movements of hurricanes, as well as other storm conditions. If we have a great mass of high pressure over the North Atlantic Ocean and a hurricane is present here, as a rule that hurricane is forced west of its normal course and sometimes the pressure is high over the eastern United States, at the same time, and the hurricane never will recur, but moves north-eastern. It moves north and strikes Mexico and disappears soon after it reaches inland.

A tornado is a very intense storm, which usually forms in connection with thunder-storm conditions. Most of the time a tornado develops in the southeastern quarter of the low pressure area.

We have tornado development when there is a great overturning of cold air aloft in connection with warm air at the surface of the ground. Those conditions occur mostly in the early or late spring, and, of course, as the season advances, tornadoes are more common up in the Minnesota section than they are earlier in the year.

Long Range Forecasting.—A talk on forecasting would not be complete without some reference to long range forecasting. We are all interested in long range forecasting.

The Weather Bureau of the United States Department of Agriculture will employ long range weather forecasting just as soon as it can be put on a scientific basis rather than on a foundation of mere guesswork. The Weather Bureau and other scientific agencies have, for a long time, been studying the possibilities of long range forecasting. To date no practical methods have been devised, and so-called forecasts of this character are no better than mere guesses. The scientific views and practices of the Bureau are sound and these will withstand the most sincere scrutiny of honest, capable, unprejudiced students.

Thru the last several hundred years there has seldom been a time when one or more long range forecasters have not sought to interest the public in their sensational claims. These have flourished for a time, only to pass into obscurity. Neither the claims nor the theories have been able to survive the inexorable test of time.

Similarly, from time to time since the establishment of the Weather Bureau in 1870, some such forecasters have tried to advertise themselves and their views by violent abuse of the Federal officials for not endorsing their claims. The same thing has happened in England, France, Germany, Italy, and elsewhere. Instances of such forecasters operating independently of and in conflict with the collective experience and knowledge of the professional meteorologists are old stories.

In contrast to these, another class of students apply their time and efforts along sound and accepted scientific lines to solve the problem of long range forecasting by honest and intelligent effort. Professional meteorologists feel no hostility towards these earnest students. As a matter of fact, leaders in this class are to be found both within and without the great national services, and cordial friendship and co-operation prevail between all such private and professional workers.

Within the United States the Weather Bureau holds a leading place in this line of meteorological progress, and the pages of its Monthly Weather Review carry many notable and original contributions of a progressive character, dealing with sunspot; solar radiation; solar and terrestrial correlations; the laws of sequence of weather conditions; the dependence of present weather in one part of the globe upon antecedent conditions somewhere else, and so on.

These topics collectively embrace all the known possibilities upon which long range forecasting can be rationally based.

For several years one official devoted practically his entire time to the review of past and current literature and to the prosecution of special studies in the field of long range forecasting possibilities. In addition, others of the Bureau, including the Chief of the Bureau himself, have given special attention to this line of inquiry. Any suggestion that will stand the test of analysis and that possesses the promise of real forecasting value is welcome. The public may be well assured that the Weather Bureau speaks with authority, based upon positive knowledge, on any of these questions of long range weather forecasts.

While the prolonged researches of the professionals have disclosed thus far little more than encouragement, faint suggestions, possible clues—something to be studied further—the self-constituted forecasters seize upon, distort and exaggerate the suggestions of the students, and paraphrase their technical language into plausible effusions in order to justify their claims and their guesses to the credulous public.

It is axiomatic that weather forecasts, whether for a short or a long time in advance, if made on a basis of pure guess work will be valueless, altho they get a certain verification, depending entirely on the laws of chance. On the other hand, such weather forecasts, to be successful, must satisfy the rigid laws of physics. Speculations and effusions that disregard either or both these prerequisites are mere sophistry, if not deliberate fraud.

The Government can not allow itself to be duped and misled by the various sensational claims and representations that are made from time to time in the press and otherwise. All these must be thoroughly sifted before acceptance.

Grain and Feed Trade News

Reports of new firms, changes, deaths and failures; new elevators, feed mills, improvements, fires, casualties and accidents are welcome.

CALIFORNIA

Los Angeles, Cal.—The Farmers National Grain Corp. opened an office in this city on Dec. 1, in charge of Wm. A. Hunter, formerly of Hales & Hunter, feed manufacturers.

San Francisco, Cal.—The Globe Grain & Milling Co. on Nov. 20 gave a luncheon to about 75 grain and flour men of this city, giving an opportunity to the trade to inspect the recently completed office quarters of the company.

Santa Fe Springs, Cal.—The Farmers & Stockmen Feed Yard & Milling Corp. is establishing a feed mill and feed yards on land near here, where a business of scientific feeding of beef cattle with feed milled on the premises is to be conducted. The company's main office will be at Downey.

CANADA

Elmira, Ont.—We have made arrangements to go into the shipping of hay and straw to the United States.—Elmira Produce Export Co., per L. B. Ditner, treas.

Churchill, Man.—Dock and elevator construction at this point finished for the year before Nov. 15, and the townsite was closed for the winter. About a dozen men will remain here during the winter as guards.

Victoria, Ont.—John K. McLellan, who retired from active business some time ago and took up his residence in this city, died recently, at the age of 82 years. He was well known in Manitoba grain circles for many years.

Ft. William, Ont.—E. B. Ramsay, chairman of the Board of Grain Commissioners for Canada, is reported to have said that a recommendation had gone forward that the storage accommodation at the Government elevator be increased.

Victoria, B. C.—Logan & Bryan opened a new office here on Nov. 24, fully equipped with direct wires to all principal markets in Canada and the U. S. The other Canadian offices are located at Montreal, Toronto, Quebec and Vancouver.

Brooklin, Ont.—Wm. Robson, who once operated an elevator here, also the Dundurn Flour Mills in Hamilton for many years, died recently in the General Hospital in Hamilton. He never recovered from a nervous breakdown caused by the death of his wife last August.

Vancouver, B. C.—Geo. W. Head, a former member of the Winnipeg Grain Exchange, has succeeded F. J. Russell as superintendent of the Ballantyne Pier at this city. He was formerly in the grain shipping trade in eastern Canada, and since coming to the Pacific Coast has held the position of vice-chairman of the Vancouver Grain Exchange and trustee of the Vancouver Merchants Exchange.

COLORADO

Keenesburg, Colo.—The Keenesburg Elvtr. Co. recently installed a new feed grinder with a 25-h.p. motor.

WHEAT and CORN

For "Peak of Service"

CONSIGN TO

ROCKY MOUNTAIN GRAIN and COM. CO.

Board of Trade Bldg., Kansas City, Mo.

Towner, Colo.—We have installed a Ford Model A 12-h.p. engine, electric lights and made some other improvements. I have been manager here since July 3.—Fishman Grain Co., John Meyers.

Denver, Colo.—J. P. Ross, pres. of the Conley-Ross Grain Co., of this city, died on Nov. 21, at Matheson, Colo., of pneumonia, after an illness of but a week, at the age of 65 years. Mr. Ross was considered a veteran in the grain, bean and flour business of this state.

Denver, Colo.—The feed mill and grain elevator of the Hungarian Flour Mills, a unit of the Colorado Milling & Elvtr. Co., burned early in the morning of Nov. 21; loss, approximately \$40,000. About 425,000 bus. of grain burned. Bins containing the manufactured feed were not burned, neither was the feed mixing unit. The storage unit is being repaired. Sparks created by friction on a power belt was given as the cause of the fire.

ILLINOIS

Woodson, Ill.—The cob incinerator of the Farmers Elvtr. Co. has been rebuilt.

Ivesdale, Ill.—Cook & Eckstein are the successors to Cook & Milligan at this point.

Walnut, Ill.—The new feed plant of the Stiver Mills held its opening on Nov. 17 and 18.

Sterling, Ill.—W. E. Kitzmiller is now manager of the Sterling-Rock Falls Co-op. Marketing Ass'n.

Woodhull, Ill.—The Woodhull Grain Elvtr. Co. has bot a new ball-bearing attrition mill having double the capacity of the former mill.

Media, Ill.—The Corn Belt Seed & Feed Co., Clifford Brown proprietor, recently installed a hammer mill, which started grinding feed on Nov. 24.

Murrayville, Ill.—A dust chute to the cob incinerator is taking the place of dust house recently blown down in a storm, at the Farmers Elvtr. Co.'s elevator here.

Kankakee, Ill.—The regular monthly meeting of the grain trade of this territory was held at McBroom's Restaurant, on Dec. 3, at 6:30 p. m., at which time dinner was served.

Minonk, Ill.—Grain men of the Streator territory met on Dec. 9 at this point, at the Woodford Hotel, at 6:30 p. m., this meeting taking the place of the regular November and December meetings.

Champaign, Ill.—Champaign territory grain men held their regular monthly meeting in this city, at the Inman Hotel, at 6:30 p. m. Dec. 9. After dinner, matters of importance to the trade were discussed.

Vandalia, Ill.—W. F. Arnold, of Chicago, is having his feed mill at this point cleaned and put in shape to renew operation. The business will be conducted by W. H. Culbertson. Last year J. H. Brooks & Son operated it.

Bloomington, Ill.—The plant of the Illinois Feed & Elvtr. Co., which was declared bankrupt several months ago, was sold at auction on Nov. 24, to C. F. Scholer, pres. of the Hazenwinkle-Scholer Grain Brokerage Co., of this city, for \$50,000.

Yutan (Bloomington p. o.), Ill.—Theodore Wollenschlaeger, who has been manager of the Farmers Grain & Merchandise Co.'s elevator here for four years, has been transferred to the elevator at Merna and has been succeeded here by Will Wollenschlaeger, of Danvers.

Peoria, Ill.—The Board of Trade has passed a call rule on grain to arrive, effective Dec. 8, by a vote of 38 to 6.

Gilman, Ill.—The grain trade of the Gilman territory will hold its regular monthly meeting at the I. O. O. F. Hall, this city, on Dec. 11, at 6:30 p. m., at which hour dinner will be served. It is expected that several matters of importance will be taken up at this meeting.

Urbana, Ill.—Jesse Summers, of E. W. Bailey & Co., has gone to Hot Springs, Ark., seeking relief from a severe attack of rheumatism from which he has suffered since the middle of October. In the November 12 Journals Mr. Summers was reported as being in a hospital in this city.

Harmon, Ill.—The grain elevator here owned by the F. A. Grimes Elvtr. Co., of Sterling, burned at 7:30 p. m., Nov. 22; loss, about \$13,000; covered by insurance. The elevator, which was empty at the time of the fire, was one of three owned by the Grimes Co. at this point.

Stronghurst, Ill.—C. R. A. Marshall, one of the charter members of the Farmers Grain Co., later the Stronghurst Grain & Merchandise Co., of which he was sec'y and treas., died very unexpectedly at Walton, Kan., on Nov. 15, shortly after arriving to attend the funeral of his mother-in-law.

Decatur, Ill.—Consolidated Grain Co., incorporated; capital stock, \$10,000; incorporators: Wm. Hight, L. G. Long and Maurice Smith; to buy and sell grain, feed, seed, coal and farm supplies. Mr. Hight is a member of the Hight Elvtr. Co., of Decatur, and is also manager of a line of elevators operated by Hight & Cline.

Wenona, Ill.—Louis J. Colehower has bot W. H. Tallyn's elevator and grain business and will take possession Dec. 11. Mr. Colehower is the owner of the former Taggart & Colehower grain business here, which he took over upon the death of Mr. Taggart about a year ago. Mr. Tallyn has been in the grain business here for many years.

CHICAGO NOTES

The rate of interest for advances on Bs/L for December has been set at 5% per annum.

The Board of Trade is buying its own memberships at \$10,000, five having been so purchased during the last two weeks of November. The fund for the purchase of memberships is \$250,000.

Fred R. Dresler, a member of the Board of Trade for 49 years and a resident of this city for 55 years, died, on Nov. 24, of heart disease, at his home here, at the age of 70 years. He was a pit trader on the Board of Trade and specialized in rye. His widow and two sons survive him.

Uriah R. Denniston, a member of James E. Bennett & Co. and a member of the Board of Trade, died on Nov. 30, in the Illinois Central Hospital, following an operation for intestinal trouble. Mr. Denniston, who was 61 years of age, is survived by his widow, a son and a daughter.

Recent new members of the Board of Trade include the following: William H. Mitchell, Arthur R. Stone, Gordon R. Bongard, Joel H. Wright, Benjamin S. Wilson, Edward F. Thompson, Jr., Albert Simpere, Charles P. Cummings, Edward G. Pohl, Joseph R. Kudlata, William L. Meffert. Memberships transferred: James T. Murphy, John J. English, Walter A. Starr, Walter Buchen, Estate Benjamin S. Wilson, Elmer P. Kayser, Jones E. Henry, H. Grant Clark, James Craigie, Hiram H. Maynard, Walter Bledsoe, Norman Fromherz, William G. Harbin, Daniel Kennedy, David H. Quinn.

The Board of Trade has announced the appointment of a com'ite of the grain trade for the purpose of establishing contacts with allied agricultural industries so that problems of common interest may receive proper consideration.

Officers of the Board of Trade for the ensuing year have been named by the nominating com'ite as follows: Pres., James C. Murray; 2nd vice-pres., Siebel C. Harris; Peter B. Carey, now 2nd vice-pres., automatically becomes 1st vice-pres. Directors for three years: Gale Smart, Thomas Y. Wickham, Barnett Farroll, Kenneth S. Templeton, L. Harry Freeman. Election will be held Jan. 5.

John W. Radford, for many years a member of the Board of Trade, and at one time traveling representative for the Pope & Eckhardt Co., now out of business, one of the oldest houses in the Chicago grain trade, died at his home in Monrovia, Cal., where he has lived for the past 12 years, on Dec. 5, at the age of 77 years. The day before Thanksgiving Mr. Radford suffered a stroke, followed by a second one on the Monday preceding his death. His widow and a son survive him.

INDIANA

Windfall, Ind.—J. P. Harris has succeeded A. D. Doggett, resigned, as manager of the Windfall Grain Co.

Raber (Columbus City p. o.), Ind.—Electric power for all machinery has been installed by the Raber Co-op Co., and a new grinder added.

State Line, Ind.—I am starting up again in the grain business at State Line, Ind., the first of the year.—V. V. Current (Danville, Ill.)

Crothersville, Ind.—The new feed mill of the Crescent Mills, Roy Chasteen manager, held a big opening on the four last week days of November.

Forest, Ind.—Clarence Crawford, employed in the Sellars Grain Co.'s elevator here, suffered a mangled left leg when he was caught in the cog wheels while at work.—W. B. C.

Evansville, Ind.—Julius O. Artes, for many years manager of the Union Elevator here, resigning about 10 years ago, is recovering from an operation for appendicitis at a local hospital.—W. B. C.

English, Ind.—Q. Parks' feed mill, five miles south of this place, burned recently, together with much feed and raw material; loss partly covered by insurance. The mill was a community enterprise.

Sharpsville, Ind.—Bruce Haycock, of Greentown, has succeeded to the business of A. J. Smith at this point. Mr. Smith has returned to his former home at Coatesville, Ind.—Bruce Haycock, grain, feed, seeds and coal.

Indianapolis, Ind.—New members of the Indiana Grain Dealers Ass'n, acquired during the last few weeks, are: Jones Bros., Attica; Ambia Grain Co., Ambia; Swayzee Grain Co., Swayzee; Reed Grain Co., Indianapolis; The Haynes Milling Co., Portland; Farmers Exchange, Inc.; Warren; Berne Equity Exchange, Berne; Mutual Grain Co., Servia; Raber Co-op. Co., Columbia City, R. F. D., and Gray Grain & Fuel Co., Shirley.

Indianapolis, Ind.—Less than 60 days until our thirtieth annual convention convenes in Indianapolis on Jan. 22 and 23, 1931. Plans are already going forward in good shape and we hope to make the meeting this year the best one ever held. Good speakers on interesting subjects are being lined up and it can be depended on that the usual high class of entertainment always present at our meetings will obtain. Pres. and sec'y will be very glad to have any suggestions from members for the meeting, either for the program or entertainment features. Send 'em along.—Fred K. Sale, sec'y, Ind. Grain Dealers Ass'n.

Owasa, Ia.—The elevator of the Farmers Elvtr. Co. has been remodeled and an oat huller installed.

Inwood, Ia.—The Quaker Oats Co., of Chicago, was the successful bidder for the Klein Bros. Grain Co.'s elevator at this place, this company being in the hands of a receiver as reported in the Oct. 22 Journal. Wm. H. Klein has been retained as local manager of the elevator, which is now in operation again.

Woodward, Ia.—Thieves entered the mill warehouse of the Schaal Grain Co., Nov. 14, by prying off the lock on the front door, but little, if anything was taken. The sacked feed, stacked in piles on the floor, checked up correctly. It is believed the thieves were hunting for flour, as they entered a room where it had formerly been stored, but did not succeed in finding it.

Sioux City, Ia.—At the annual election of the Grain Exchange the following were elected directors: S. P. Mason, H. J. Hutton, Paul A. Ketels, to serve three years, and R. E. Henderson to serve two years. Hold over members of the board are C. C. Flanley, J. S. Eales, E. A. Fields, J. C. Mullaney and M. King. The grain com'ite for the coming year is composed of J. C. Mullaney, chairman, C. C. Flanley and C. E. McDonald. The personnel of the elevator com'ite is J. J. Mullaney, chairman, M. King and John Wasek. The newly elected officers were reported in the last number of the Journals.

KANSAS

Belleville, Kan.—Windstorm slightly damaged the elevator of E. A. Fulcomer on Nov. 25.

Arma, Kan.—Windstorm slightly damaged the warehouse and stock of the Arma Elvtr. Co. on Nov. 19.

Angola, Kan.—The Rea-Patterson Milling Co. is building a new warehouse here for the handling of its feeds.

Emporia, Kan.—B. C. Christopher & Co. opened a branch office here on Nov. 29, in charge of George Gilliland.

Bayneville, Kan.—The Farmers Co-op. Elvtr. here has been closed for the winter, and it is possible that it may be sold.

Montezuma, Kan.—The Montezuma Co-op. Co. has protected its elevator with lightning rods, furnished by the White Star Co.

Ingalls, Kan.—The office and contents of the Ingalls Co-op. Exchange were destroyed by fire of undetermined origin on Nov. 24.

Gypsum City, Kan.—Fire reported as being of electrical origin slightly damaged the plant of the Teichgraeber Milling Co. on Nov. 24.

Beulah, Kan.—The elevator plant of the Crawford County Farmers Union Co-op. Ass'n was slightly damaged by windstorm recently.

Big Bow, Kan.—A new transmission rope 300 feet long has been installed in the elevator of the Collingwood Grain Co. It was supplied by the White Star Co.

Cladlin, Kan.—The Universal Mill & Elvtr. here was sold recently to R. L. Hamilton, of this place, by the sheriff to settle a claim for taxes. It has been idle for several years.

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Sequin, Kan.—A contract for construction of a 30,000-bu. cribbed elevator with a 10-bu. Richardson Automatic Scale has been let to the Western Engineering Co. by the Kansas Wheat Pool.

Emporia, Kan.—The Trusler Grain Co. closed its doors Nov. 22, and W. S. Kretsinger has been appointed receiver. The company's difficulties are said to be due to the decline in the grain market.

Grinnell, Kan.—The elevator here formerly known as the old Hauffman Bldg., purchased by W. A. Shirkey from the Shella-barger Grain Co., and which has not been used since 1923, has been torn down.

Hardtner, Kan.—B. A. Parsons, former manager of the Southwest Elvtr. & Merc. Co., of this place, is now manager of the Farmers Co-op. Grain Co.'s elevator here. The former company is no longer in business.

KENTUCKY

Williamstown, Ky.—Glass Bros., who have successfully operated the flour mill here for 12 years, have traded same to Reuben Taylor for his 99-acre farm near here.

MARYLAND

Ellicott City, Md.—The plant of the Continental Milling Co., consisting of a 2,000-barrel mill, a 150,000-bu. elevator and a large warehouse and blending plant, formerly owned and operated by the C. A. Gambrill Mfg. Co. as the Patapsco Flouring Mills, has been leased for a long term of years, beginning Jan. 1, by the Doughnut Machine Corp., of New York. Harry M. Blinn, former sec'y of the Gambrill Co., is the manager of the local branch of the Doughnut Corp.

MICHIGAN

Charlotte, Mich.—Belden & Co. sustained windstorm damage on Nov. 16.

Gobles, Mich.—Windstorm slightly damaged the plant of the Goblesville Milling Co. on Nov. 16.

Richmond, Mich.—Taking advantage of the fog one morning, some one drove up to the feed shed of the Farmers Elvtr. Co. and stole a truck load of chicken feed.

Battle Creek, Mich.—Willis H. Post, for many years prominent in the affairs of the Postum Cereal Co., died on Nov. 27, following a stroke. He was a director of the company for years.

North Adams, Mich.—A 12,000-gallon storage tank to hold Cuban blackstrap molasses for use with their new molasses mixing system was recently delivered to F. I. Williams & Son by White Bros.

Grand Rapids, Mich.—I am engaging in a strictly brokerage business here, handling several nationally known accounts as well as a general trade. We will shortly open a bean brokerage department in addition to our grain and mill feeds.—P. B. Bellew.

Detroit, Mich.—Vita Milling Co., incorporated; capital stock, \$5,000; to manufacture cereals, foods and flour.

Morenci, Mich.—I have just installed in a cement block building a 50-h.p. Buckeye Fuel Oil Engine and put a 16 V belt drive on my No. 3 Jay Bee Hammer Mill, both of which are working out fine.—A. H. Duffey.

Scotts, Mich.—White Bros. are doubling their present office space by refinishing the second story. This is insulated against heat and cold by the use of masonite and hard wood floors, and will be refinishing in a light tan color.

Battle Creek, Mich.—The Kellogg Co., in order to give employment to about 25% more persons, on Dec. 1 changed all plant employees from an 8-hour day to a 6-hour day. The plant will continue to operate 24 hours a day, four shifts replacing the former three shifts.

MINNESOTA

Adrian, Minn.—Erection of a feed mill here is contemplated by J. H. Welch.

Minnesota Lake, Minn.—The Farmers Elvtr. Co. has installed an attrition mill.

Truman, Minn.—The Farmers Elvtr. Co. recently improved its plant by enlarging its office space.

Montevideo, Minn.—Louis Hagen has succeeded L. J. Nesheim, resigned, as manager of the Equity Elvtr. here.

Red Wing, Minn.—Johnson & Arson have established a new feed and seed business here. Up-to-date machinery has been installed, with all the latest improvements.

Oslo, Minn.—One of the elevators of the Oslo Grain & Fuel Co. burned on Nov. 13; loss, \$16,000. About 15,000 bus. of grain, a coal shed and 100 tons of coal also burned.

St. Paul, Minn.—The 2,000,000-bu. addition to the Farmers Union Terminal Ass'n's elevator here is now receiving wheat. The total capacity of this plant is now 3,200,000 bus.

Elmore, Minn.—Two 15-ton truck scales have been installed at the elevator of the Farmers Elvtr. Co. One is a truck dump scale and the other is an outside concrete deck.

Zumbro Falls, Minn.—Repairs are being made at the former Hunting Elvtr., recently purchased by the R. E. Jones Co., as reported in the Nov. 12 Journals, the T. E. Ibberson Co. doing the work.

Ostrander, Minn.—The Ostrander Feed Mill that burned early in October has been rebuilt, new machinery installed and the mill opened for business on Nov. 22. A dozen business men served a light lunch to farmers visiting the mill on the opening day, and prizes were given for the first truck loads to arrive.

MISSOURI

Lexington, Mo.—H. C. Ardingers elevator suffered slight windstorm damage on Nov. 20.

Bethany, Mo.—On Nov. 21 the Bethany Mill & Elvtr. Co. sustained windstorm damage.

St. Joseph, Mo.—Windstorm damaged the grain storage of the Buchanan Elvtr. Co. on Nov. 26.

Montgomery City, Mo.—The Montgomery Flouring Mill, closed for several months, is again in operation.

Knob Noster, Mo.—Cecil Carpenter is the new manager of the Knob Noster Elvtr. Co. (formerly the Culp-Griem Co.)

St. Joseph, Mo.—The elevator and grain storage of the Union Terminal Railway Co. were damaged by windstorm on Nov. 26.

St. Joseph, Mo.—The Kellogg-Huff Commission Co. closed its local office on Dec. 1. Business handled by the local office heretofore will now be handled from St. Louis.

St. Louis, Mo.—Arthur Kilz, 2nd vice-pres. and treas. of the Schultz & Niemeier Com. Co., of this city, and Mrs. Kilz have returned from a motor trip extending into Canada. They spent several days at the Chicago Board of Trade.

Kansas City, Mo.—Excavation started on Dec. 1 for the foundation of the 2,500,000-bu. elevator to be erected by the Missouri-Pacific Railroad here and operated by the Continental Export Co., as reported in the Nov. 12 Journals.

Kansas City, Mo.—The 400,000-bu. Eagle Elvtr., on the Missouri Pacific R. R., has been made "regular" by the Kansas City Board of Trade, making a total of 15 regular elevators in this city, with a combined capacity of 28,500,000 bus.

St. Louis, Mo.—A meeting was held on Dec. 3 and another one is scheduled for today, Dec. 10, by the nominating com'ite of the Merchants Exchange to receive recommendations for officers, directors and com'itemen for the exchange for the coming year.

Kansas City, Mo.—The nominating com'ite, which will select candidates for 1931 officers of the Board of Trade, is as follows: Jas. N. Russell, chairman; W. W. Marshall, O. A. Severance, E. O. Bragg, Fred C. Vincent, Pres., 2nd vice-pres., six directors and five members of the arbitration com'ite are to be named. Jan. 6 is the date of the election.

St. Charles, Mo.—The Gillis-Jones Milling Co., a new organization, has taken over the rice mill here, which has not been operated for over a year, and is now operating it at full capacity, 22 men being employed. If rice shipments continue as at present, the mill will run day and night and a force of 40 men employed.

MONTANA

Red Lodge, Mont.—It is reported that work is to start at once on a new grain elevator for the Montana & Dakota Grain Co. here, to cost \$20,000. The company's elevator was badly damaged by fire resulting from lightning, this fall.

WICHITA

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Adair Grain Co.
Wheat, Corn, Oats, Kafir

Wichita Terminal Elevator Co.
Receivers, Shippers—Storage

Sam P. Wallingford Grain Corp.
General Grain Business

A. F. Baker Grain Co.
Corn, Kafir, Milo, Oats, Barley

Froid, Mont.—The Farmers Elvtr. Co., incorporated; capital stock, \$50,000; incorporators: John P. Miller, P. Johnson, C. C. Scott, N. Sorenson, H. Hoye, J. LaMar and V. Nyquist, all of Froid. The Farmers Elvtr. Co. was established here in 1912.

NEBRASKA

Broadwater, Neb.—Repairs are being made at the Broadwater Elvtr. Co.'s elevator by the Cramer Const. Co.

Falls City, Neb.—The Falls City Milling Co. has installed a Bender Overhead Traveling Electric Truck Lift.

Rogers, Neb.—The Cherney & Watson Lbr. Co. bot the T. B. Hord Grain Co.'s elevator here on Oct. 1.—Ray Watson.

Columbus, Neb.—Installation of a hammer mill is contemplated by the Columbus Milling Co. some time in the near future.

Bellwood, Neb.—We contemplate installation of feed grinding machinery for local work.—L. Urban, Farmers Co-op. Grain Co.

Gibbon, Neb.—General improvements have been made here at the T. B. Hord Grain Co.'s plant. Equipment was furnished by the York Fdry.

Platte Center, Neb.—We contemplate installation of a feed mixer as our grinding business develops.—Frank Schultz, Platte Center Milling Co.

West Point, Neb.—The new Norco Feed Mill opened for business Nov. 19, and in spite of the rain, over 200 persons registered at the office of the mill.

North Bend, Neb.—We have replaced our gas engine power with two Winter Universal Head Drives and 5-h.p. enclosed motors.—Verne McIntosh, Farmers Union Co-op. Co.

David City, Neb.—While uncertain about it as yet, we are considering installation of a feed mixer to operate in connection with our Jay Bee Hammer Mill.—Geo. E. Stepanek.

Minden, Neb.—On Jan. 1, I take charge as manager of the Farmers Grain & Supply Co.'s elevator at Minden. I work at the Farmers Grain Ass'n's elevator at Benedict, Neb., now.—C. W. Howard.

Bloomington, Neb.—The Bloomington Equity Elvtr. purchased a new elevator belt, with cups and Howell-Hyatt Roller Bearing Pillow Blocks, with other repairs from R. R. Howell & Co.—W. E. Hewett.

Chappell, Neb.—A new driveway grate has been installed at the plant of the Lexington Mill & Elvtr. Co. and some other repairs made by the W. H. Cramer Const. Co. The York Fdry. furnished the grate.

Fairfield, Neb.—The Birchard Const. Co. has been making repairs and installing some new equipment for the Farmers Union Co-op. Elvtr. The York Fdry. & Engine Wks. furnished the repairs and equipment.

Edholm, Neb.—The Dawson Grain Co. has just completed overhauling its local elevator, literally rebuilding it from top to foundation. A new 10-ton truck scale and a Winter Pneumatic Truck Lift with long steel grate have been installed, the engine room rebuilt and the old engine replaced with a 10-h.p. gas engine. The structure is now gleaming in a new coat of red paint. F. P. Bartosh is the agent in charge.

Dixon, Neb.—F. J. Hopkins has installed a Bender Overhead Traveling Electric Truck Lift, with a 2-h.p. motor, in his elevator, and the Farmers Union Elvtr. Co. has also installed a Bender Electric Truck Lift.

Hemingford, Neb.—The hip roof of the Farmers Elvtr. Co.'s elevator, which was clamped on with bolts at all corners, was lifted bodily in the air by the terrific gale that blew on Sunday, Nov. 23. The damage was covered by insurance.

Humphrey, Neb.—A No. 2 Blue Streak Hammer Mill has been installed in the local plant of the Humphrey Mills. For the present this is being run from a line shaft, but it is planned to install a motor, direct-connected to the mill, in the spring.—Wm. Van derheiden.

McCool Junction, Neb.—The Farmers Union Co-op. Ass'n has just completed the erection of a building south of its elevator, to be equipped with a hammer mill and a 50-h.p. motor. The mill will grind all kinds of grain, including ear corn, alfalfa hay and corn fodder.

Columbus, Neb.—A new one-ton feed mixer with 20-h.p. Westinghouse Motor has been installed in the local elevator and feed plant of the T. B. Hord Grain Co., which has been preparing during the last few months to manufacture a full line of commercial mixed feeds.—D. C. Gammel, T. B. Hord Grain Co.

Nebraska City, Neb.—The new 300-ton per day feed plant, including a 100,000-bu. elevator, now under construction for the G. E. Conkey Co., of Cleveland, O., as reported in the Journals last number, is expected to be in operation the first of the year. C. W. Franklin, who built the elevator in 45 days, is building the feed mill.

Bertrand, Neb.—Emil L. Peterson, manager of the Bertrand Equity Exchange Elvtr. for the past nine years, died on Nov. 27, at the age of 45 years. The immediate cause of death was pneumonia, following an operation for infection of the bone caused by a fall at the elevator on Nov. 17, when the support on which he was standing, as he adjusted a spout, gave way, letting him down 15 feet. His thigh was cut and bruised, but gave no alarming symptom until five days after the accident, when the bone infection set in. He is survived by his widow one son and three daughters.

Superior, Neb.—George Scoular, pres. of the Scoular-Bishop Grain Co. of this city and of Omaha, died at a hospital in Lincoln, on Nov. 25, at the age of 76 years. He had been in failing health for several months. Funeral services were held from the family home in this city on Nov. 28. Mr. Scoular was born in Scotland, coming to this country while still a youth and being first employed by Marshall Field at Chicago. He came to Nebraska in 1888, settling at Odell, where he operated a lumber and grain business for about a year, then moved to Superior, establishing a lumber and grain business here and also one at Webber, Kan. His business flourished from the start and branches were established from time to time. In 1912 he formed a partnership with Dennis C. Bishop. In 1920 a corporation was formed, known as the Scoular-Bishop Co., with Mr. Scoular as pres. Mr. Scoular, Mr. Bishop and J. H. Wooldridge established a wholesale grain business at Kansas City, in 1914, operating as the Scoular-Bishop Grain Co., of which Mr. Scoular was also president. A wholesale grain business is also operated at Omaha, with a large elevator at Council Bluffs. Mr. Scoular was president of the Superior Grain Exchange for several years, and was active in social, religious and educational matters. He is survived by his widow, a married daughter and two sons, one of whom, Robert Scoular, of Kansas City, is sec'y of the Scoular-Bishop Grain Co.

Boston, Mass.—Hereafter all sales of memberships in the Boston Grain & Flour Exchange must be made thru the office of the sec'y.

NEW MEXICO

Capulin, N. M.—Windstorm tore part of iron roof off the elevator of the Charles Maxwell Investment Co. on Nov. 20.

NEW YORK

Binghamton, N. Y.—A feed milling and flour business has been opened here by Hugh B. and R. L. Lott.

New York, N. Y.—P. S. Arthur, of the Arthur Brokerage Co., and a member of the Produce Exchange, died unexpectedly Nov. 17.

Buffalo, N. Y.—Jas. P. Sullivan has become associated with the Traders Feed & Grain Co., of this city. He gained his experience in the business with the former Churchill Grain & Feed Co.

Albany, N. Y.—It is reported that officials of the Port of Albany have started a movement for the construction of a grain elevator here. It was reported last June that the 1931 legislature of the State of New York was expected to provide funds for the erection of an elevator at this port.

Forestville, N. Y.—Asa E. Dye, founder and pres. of the Dye Milling Co., Inc., and who has long been prominent in the feed milling and flour industry of western New York, died, on Nov. 19, in a hospital in Buffalo, following a fall in his office several days before. He was 66 years of age.

Westtown, N. Y.—The fire at the plant of C. G. Clark & Son, reported in the last number of the Journals, is believed to have been started by burglars, who carelessly dropped matches or cigarettes. They broke the handle of the safe but could not open it. The burned plant consisted of an elevator and feed store, a mill, lumber shed and coal pocket; loss, about \$100,000; partly covered by insurance. A new \$5,000 molasses feed mixing machine, 40 tons of molasses, \$2,000 worth of paint, a 3-ton delivery truck, 900 gallons of gasoline, 500 tons of coal, a carload of cement, about seven carloads of lumber, a carload of roofing material, quantities of plaster board, tile and other building material and a freight car on the siding filled with feed were burned. Mr. Clark, who has been in the feed, coal and lumber business here for about 45 years, expects to erect a new plant as soon as possible.

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grain, grain products, seeds and soy beans while stored in your own mills and elevators. Reasonable rates. Details on request.

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Broadway and E. 15th St., Cleveland, O.

Boston, Mass.—Sympathy is being extended to Harry N. Vaughn, of the Chas. M. Cox Co., by members of the Boston Grain & Flour Exchange, in the recent death of his wife.

Croghan, N. Y.—Joseph Steiner, a member of the firm of Farney & Steiner, operating a feed mill here, and a prominent resident of this village for many years, died on Nov. 13, at the age of 70 years, at Watertown, where he underwent a serious operation two weeks previously. He is survived by his widow and three sons.

New York, N. Y.—Two prominent members of the Produce Exchange, both of them in the grain business, died on the same day, Dec. 2. A. C. Field, head of the A. C. Field Co., who has not been well for some time, and William Knight, of the Knight Grain Co., who died very unexpectedly at his home. Mr. Field resigned only a short time ago as vice-pres. of the Exchange, on account of his health, and Samuel Knighton was elected to fill his unexpired term.

New York, N. Y.—Edward T. Cushing, a member of the Produce Exchange for 55 years, died recently at his home in this city, of heart disease after an eight months' illness, at the age of 79 years. He was at one time a member of the board of governors of the exchange, and at the time of his reaching his 50 years of membership, a celebration was held on the floor of the exchange. He organized the firm of Locke & Cushing, not now in existence. He is survived by his widow and three daughters.

Norwich, N. Y.—The plant formerly occupied by the R. D. Eaton Feed & Grain Co., consisting of a grain elevator, three frame buildings and a large brick warehouse, has been bought by the W. H. Dunne Co., a wholesale grocery house operating a chain of stores. M. L. Hunt, pres. of the Dunne Co., writes: "This property adjoins our own, and will be used by us for our own business, and the grain elevator is to be destroyed and removed from the lot, and a new warehouse will be erected on the Eaton site. Crawford Bros., grain dealers, are now using the Eaton grain elevator, but their lease will expire next July, when the building will be destroyed. We do not anticipate going into the grain business."

NORTH DAKOTA

Venturia, N. D.—The Doerr Elvtr. here burned on Nov. 20; it contained 30,000 bus. of grain.

Drayton, N. D.—The Farmers Union Elvtr. Co. had repairs made on its elevator here by the T. E. Ibberson Co.

Jamestown, N. D.—Christian Neundall is the new manager of the Farmers Union Terminal Ass'n's elevator here.

Reynolds, N. D.—Repairs will be made on the Reynolds Farmers Elvtr. Co.'s elevator at this place. The T. E. Ibberson Co. will do the work.

Minot, N. D.—Harry H. Stahl, superintendent of the St. Anthony & Dakota Elvtr. here for 21 years, died at his home on Nov. 30, at the age of 51 years. His widow and one daughter survive him.

Milnor, N. D.—At the Farmers Grain & Trading Co.'s elevator recently, the feed grinder was wrecked from some unknown cause, but fortunately no one was hurt, although three men were in the room at the time.

Watford City, N. D.—Fire caused by metal going thru the feed mill slightly damaged the elevator of the Farmers Co-op. Elvtr. Co. on Nov. 14. Stockholders of this company recently voted down a proposition to buy the local flour mill.

Williston, N. D.—Altho not entirely completed, the new 217,000-bu. elevator, erected here by the Farmers Union Terminal Ass'n and to be operated by the Farmers Union Co-op. Elvtr. Co., opened to receive grain on Nov. 19. This is said to be the second largest grain elevator in North Dakota.

OHIO

Ashley, O.—A feed grinding mill has been installed by the Ashley Lbr. Co.

Grover Hill, O.—Lewis Yearling has purchased the Post Feed Mill here from Paul Post.

Toledo, O.—The Ohio Grain, Mill & Feed Dealers Ass'n is moving its offices into the new Board of Trade Bldg.

Covington, O.—The Peiffer Grain Mill, west of this place burned at 1:30 a. m., Nov. 14. No insurance was carried.

Custar, O.—A new diesel engine, housed in a fireproof building, has been installed by the Dreshler Farmers Elvtr. Co.

Gretton, O.—A new feed mixer has been installed by the Farmers Grain & Seed Co., also a hammer mill to replace the attrition mill.

Hume, O.—A molasses mixer and a 12,000-gallon tank for storage of molasses have been installed recently by the Hume Equity Exchange.

Celina, O.—The new manager of the Equity Exchange is L. J. Ducat, formerly manager of the Equity Elvtr. at Cavett (Van Wert p. o.).

Camden, O.—Eikenbary Bros. have improved their equipment by the addition of a magnetic separator, which was furnished by the Sidney Grain Mch. Co.

Covington, O.—J. R. Shuman & Son recently installed a Sidney Hammer Mill Feeder in their elevator here, now under lease to G. E. Kinnison & Son.

Malta, O.—The Morgan County Farmers Elvtr. Co. has an option on a building at Santoy formerly used as a hospital, and may move it to this place for its own use.

New Cumberland, O.—The old water driven flour mill here, one of the best known landmarks in this section, was sold recently at a sheriff's sale for \$1,666.67 to D. A. Hotchkiss, of Crafton, who foreclosed a mortgage on the mill.

Cincinnati, O.—The soybean meal plant of the Early & Daniel Co. is now operating 22 hours a day. A large, illuminated sign on the plant tells passersby, "This plant working day and night." The storage capacity of the plant is 100,000 bus.

Toledo, O.—A hearing was held in the matter of the C. A. King Co., bankrupt, before Fred H. Kruse, referee in bankruptcy, on Dec. 5, for the purpose of passing on the application of the receiver and trustee for fees of \$1,990 to be paid before dividends to general creditors.

Columbus, O.—The Farm Buro Milling Co. is a new milling organization organized by Indiana, Michigan and Ohio for the manufacture of our dairy, poultry and stock feeds, with general offices at 620 East Broad St., this city. L. A. Thomas, of Michigan, is pres.; I. H. Hull, of Indiana, vice-pres., and I. act as sec'y and treas.—The Ohio Farm Buro Service Co., by D. M. Cash, general manager.

Columbus Grove, O.—We have been very busy during the past month making repairs. On Nov. 1 a derailment on the B. & O. R. R. caused considerable damage to our elevator and warehouse. A corner of the elevator and part of the foundation was torn away. The siding on our warehouse and coal sheds, which is 150 feet long, had to be entirely replaced. In addition to this, the sills in the warehouse were broken, which caused the floor to fall and did considerable damage to our feed. We were idle for over two weeks but are now operating again. We are at the present time installing a cold molasses mill, which will be in operation about the first of the year.—Eikenbary & Son.

Toledo, O.—Dec. 1 was a big day for the Board of Trade (formerly the Produce Exchange), as on that day the formal opening of the new trading floor in the Board of Trade Bldg. was held, when, promptly at 10 a. m. the facilities were put into operation. Members and friends from far and wide filled the room. Great baskets of flowers, sent by many well-wishers, were everywhere. Telegrams and letters buried the desk of the president, bearing congratulations from leading exchanges and prominent members of the grain trade. A special ceiling tones down all noises, even that of voices, and the quotation board for grain and stocks is of the latest and best design. Four private wires direct to the Chicago Board of Trade and other principal markets give instant service. A projector gives the last sale on New York stocks. Vital grain statistics are plainly written and easily read. In the evening a dinner was given to the directors and to out-of-town visitors, at the Toledo Club.

OKLAHOMA

Ralston, Okla.—The elevator plant of the Ponca City Milling Co. Inc., burned on Nov. 26.

Durant, Okla.—The Durant Milling Co. sustained slight windstorm damage on Nov. 19.

Shattuck, Okla.—Windstorm slightly damaged the elevator of the Kansas Milling Co. recently.

Tonkawa, Okla.—Alec J. Esch, who has been in the grain business here for the past 15 years, at the time of his death being the owner of the A. J. Esch Grain Co., died on Nov. 16, from a complication of diseases, following a two weeks' illness, at the age of 61 years. His widow, one son and four daughters survive him. T. W. Prather, who has been associated with the Esch Grain Co. for 13 years, is to manage the elevator for the estate.

Enid, Okla.—The 100,000-bu. cribbed and iron clad elevator built for the Union Equity Co-op. Exchange here by the A. F. Roberts Const. Co., has two legs, equipped with Superior DP cups, each driven by a 20-h.p. enclosed motor, a double distributor, a Clark Single Power Shovel, a Western Wire Rope Car Puller, an all steel truck lift, steel grate and hopper, an aerator, a 10-ton truck scale and an 800-bu. hopper scale. The 26-ft. pit with the car sink has capacity for holding over 1,000 bus. and discharges into the boots by gravity. The two-room office is 24x28 ft. and has a scale shed over the deck of the truck scale.

Medford, Okla.—The Clyde Co-op. Ass'n's 50,000-bu. cribbed and iron clad elevator, built by the A. F. Roberts Const. Co., has one leg with Superior DP cups, operated by a 15-h.p. enclosed motor. The back bins at the top are served by a 16-in. screw conveyor driven by a 5-h.p. enclosed motor. All bins drain thru the dump sink to the boot. Truck unloading equipment includes an all-steel truck lift, steel grate and hopper. Car unloading equipment includes a Clark Single Power Shovel driven by a 10-h.p. motor. On the side of the elevator is an open-air drier. Weighing equipment includes a 10-ton truck scale and an 8-bu. Richardson Automatic Scale. The 12x24-ft. office has two rooms. A suction fan, driven by the head-drive, operates on the leg.

PACIFIC NORTHWEST

Dayton, Wash.—C. J. Broughton is building an 80,000-bu. elevator here.

Portland, Ore.—The Sunset Feed Mills are constructing a molasses tank at their plant.

Seattle, Wash.—J. J. McCormack, manager of the Grain Exchange, is recovering from an operation for appendicitis.

Davenport, Wash.—A number of improvements are being made in the plant of the Big Bend Milling Co. (consisting of an elevator, mill and warehouse), which was purchased by the Oriental-American Traders Corp., as reported in the October Journal, and it is expected that the mill will soon be in operation again.

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GRAIN — HAY — FEED

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CHRISTENSEN GRAIN COMPANY

BUYERS and SHIPPERS

Strictly Country Run Corn and Oats

FORT DODGE IOWA

Notus, Ida.—We are installing one 3-h.p. and one 15-h.p. motor, also one Jay Bee Handy Andy Batch Mixer. The motors are to replace single phase equipment previously in use.—Pennington Produce Co., Howard Pennington.

Rockford, Wash.—The manager of the Rockford Grain Growers, Inc., who have purchased the warehouse and business of the Rockford Growers Warehousing Corp., as reported in the last number of the Journals, is Walter S. Hurd.

Twin Falls, Ida.—The Twin Falls Feed & Ice Co. has just installed feed mixing machinery in its large plant here, which now manufactures dairy and poultry feeds. Beans and all kinds of seeds are cleaned by electrically operated machinery.

Spokane, Wash.—Christmas donations to the "Good Fellows," headquarters in this city, all expenses in connection with the work being paid by the Spokane "Daily Chronicle," include 100 sacks of 24½-pound flour from the F. M. Martin Grain & Milling Co., of Cheney, Wash., and 300 pounds of breakfast cereal from the Dina-Mite Food Co.

Portland, Ore.—Following the resignation of Edgar W. Smith, founder of the Astoria Flouring Mills and pres. of the Pillsbury-Astoria Flour Mills Co. since its organization, J. P. McKenney of Minneapolis, has been elected pres. with headquarters in this city. Both Mr. Smith and L. C. McLeod, plant manager, have sold their stock to the Pillsbury interests, Mr. McLeod retaining his position, however, and having been made treas.

PENNSYLVANIA

Franklin, Pa.—J. H. Lavery's feed mill was entered by thieves recently, who obtained \$300 in cash and wrecked the safe.

Ackermanville, Pa.—The 100-year old building of the Ackermanville Milling Co. burned at 2 o'clock a. m., Nov. 15; loss, about \$27,000; partly insured. The mill was full of grain, all of which was destroyed. O. W. Stackhouse was the proprietor.

Philadelphia, Pa.—On Dec. 23 the annual Christmas dinner for the poor children of this city, given by the Commercial Exchange, the Bourse, the Board of Trade, the Flour Club, the Maritime Exchange and the Grocers & Importers Exchange, will be served in the Bourse.

SOUTH DAKOTA

Mansfield, S. D.—Repairs were made at the Atlas Elvtr. here by the T. E. Ibberson Co.

Yankton, S. D.—It is reported that there is a possibility of the recently organized Farmers Union Co-op. Grain Ass'n locating a \$225,000 terminal elevator here.

Belvidere, S. D.—Steps are being taken to ascertain if sufficient stock could be subscribed to finance a farmers' elevator here. A similar attempt was made about nine years ago.

Webster, S. D.—Repairs have been made at the Webster Equity Elvtr. here. The T. E. Ibberson Co. did the work.

Salem, S. D.—Farmers Grain & Coal Corp., incorporated; capital stock, \$5,000; incorporators: C. P. Schmidt, L. Schroeder and Jennie Schmidt.

SOUTHEAST

Antreville, S. C.—John F. Gray's grist mill burned early Sunday morning, Nov. 23. Fifty bus. of corn, a quantity of seed and five bales of cotton also burned.

Atlanta, Ga.—Machinery for shucking, shelling and grinding corn, having a capacity of 2,400 bus. per day, also machinery for mixing molasses with feed, is being installed by the W. L. Fain Grain Co., large feed mixing concern of this city.

Asheville, N. C.—The Harris-Davis-Shaver Co., incorporated; capital stock, \$25,000, with \$15,000 subscribed by the incorporators; incorporators: J. Monroe Harris, Harry S. Davis and J. Allen Shaver; a consolidation of the wholesale feed brokerage houses of Phillips & Shaver, Inc., and the Harris-Davis Co.

TENNESSEE

Memphis, Tenn.—Jack Donelson, head of the feed brokerage firm of A. J. Donelson & Co., is recovering from a recent operation.

Pigeon Forge, Tenn.—A. D. Martin has purchased the property of the Pigeon Forge Milling Co., Inc., and after repairing same and installing some new machinery is now manufacturing flour and feed.

TEXAS

Pharr, Tex.—The Pharr Equity Exchange is establishing a feed mill next to its elevator.

Galveston, Tex.—The Liberty Feed Mills of Texas, Inc., are decreasing their capital stock from \$50,000 to \$25,000.

Cleburne, Tex.—Burglars, who gained entrance thru a back window of the Gillock Grain Co.'s office, found but little more than \$1.

Alice, Tex.—The Alice Cotton Oil Co. is erecting a 40 x 60, 3-story building to be used as a feed mill. Up-to-date grinding and mixing machinery has been ordered. Poultry feeds and dairy cow feeds will be manufactured.

Everett Spur (Vega p. o.), Tex.—Following the fire at the elevator of the Wildorado Grain & Merc. Co., reported in the Nov. 12 Journal, and while the elevator was closed pending settlement of insurance claims, more than 700 bus. of grain had been stolen, the thief breaking the lock and cutting a hole in one of the bins. After a night watchman was put on guard, the thief returned with a stolen truck, rammed the door of the elevator with a timber and just as he entered received several shots from the watchman, one of which took off the entire top of his head, another passing thru his heart.

Lariat, Tex.—On Nov. 24 the elevator of the Lariat Elvtr. Co. burned.

Galveston, Tex.—The work of razing the old elevator of the Galveston Wharf Co.'s is now going on, since the new elevator is completed, as reported in the Journals' last number. The old house was built 36 years ago and is of pine timber and corrugated iron construction. It will take about six weeks to demolish and remove it.

UTAH

Salt Lake City, Utah—The Utah Poultry Producers Co-op. Ass'n's new feed mill and warehouse was damaged by fire recently; loss, \$20,000. The contractors assumed the loss, since the plant had not as yet been turned over to the ass'n.

WISCONSIN

Colby, Wis.—Wiersig & Dins have installed a new feed mill in their plant.

Wanderoos, Wis.—A. Nehring has opened a feed mill in the Longton Warehouse.

Gillett, Wis.—The Gillett Milling Co. opened a sweet feed mill here on Nov. 28.

Milwaukee, Wis.—New members of the Chamber of Commerce include A. N. Epstein.

Evansville, Wis.—The Evansville Feed & Fuel Co. recently purchased a new molasses mill.

Milwaukee, Wis.—The rate of interest for December has been determined by the finance com'ite of the Chamber of Commerce at 5½% for advances on Bs/L.

Mount Horeb, Wis.—A mill, operating as the Anglo-American Feed Mill, has been opened here by J. C. Fjelstad. It is equipped with a molasses mixing system.

Poskin, Wis.—The Poskin Feed Mill, Theodore Hanson proprietor, was recently robbed of 800 pounds of flour and 40 pounds of coffee, the thieves gaining entrance by breaking a window.

Superior, Wis.—The Farmers Union Terminal Ass'n, of St. Paul, Minn., is reported to be contemplating the erection of grain-storage tanks here in the spring, probably to have a capacity of 2,000,000 bus.

Coming Conventions

Trade conventions are always worth while, as they afford live, progressive grain dealers a chance to meet other fellows from the field of daily strife and to be convinced that the much maligned horns are truly mythical. You can not afford to pass up these opportunities.

Jan. 12-13. Farm Seed Ass'n of North America, winter meeting, Stevens Hotel, Chicago, Ill.

Jan. 22-23. Indiana Grain Dealers Ass'n, Board of Trade Library, Indianapolis, Ind.

Jan. 27-29. The Farmers Grain Dealers Ass'n of Iowa, Hotel Hanford, Mason City, Ia.

Jan. 27-29. Farmers Grain Dealers Ass'n of No. Dak., Minot, N. D.

Feb. 3-5. Farmers Grain Dealers Ass'n of Illinois, Pere Marquette Hotel, Peoria, Ill.

Feb. 19-20. Eastern Federation of Feed Merchants, Onondaga Hotel, Syracuse, N. Y.

Feb. 19-21. Farmers Elevator Ass'n of Minnesota, at West Hotel, Minneapolis, Minn.

May 28-30. Society of Grain Elvtr. Superintendents of North America, Sherman Hotel, Chicago, Ill.

June. Ohio Grain, Mill & Feed Dealers Ass'n, Cleveland, O.

Oct. 11. Terminal Grain Weighmasters National Ass'n, Hotel Rice, Houston, Tex.

Oct. 8-11. Society of Grain Elevator Superintendents of North America, Hotel Rice, Houston, Tex.

Oct. 12. Chief Grain Inspectors National Ass'n, Hotel Rice, Houston, Tex.

Oct. 12-14. Grain and Feed Dealers National Ass'n, Rice Hotel, Houston, Tex.

FORT WORTH

Is the Better Grain Market — Use It and Profit

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Strictly Brokerage and Consignments

Self Appointed Spokesmen Misrepresent Trade on Farm Board Act

Sharp exception to statements by various organizations and services which misrepresent the damage being done by the Agricultural Marketing Act is being taken by clients of such services.

A weekly bulletin by Ernst & Ernst, sent from Washington, under date of Dec. 2, has caused considerable criticism from various branches of the grain and milling trade. Several clients filed immediate protest.

One of them, H. A. Butler, president of the Grain and Feed Dealers National Ass'n, challenged the statement that recent farm board operations in the markets had received "almost universal public commendation," declaring it ignored the flood of protests from press and public.

"Your statement that grain companies, millers, and others were threatened with heavy losses due to an anticipated further decline in wheat prices entirely ignores the hedging operations of these industries which protect them fully against such decline.

"The statement the government feels prices will rise brings to mind the repeated statements by government agencies beginning over a year ago to the same effect, the disastrous consequences of which are being reflected in lower world values. The present stabilization operation is a necessary corollary of the Farm Board policy of a year ago which culminated in the first stabilization operation last spring, and if the Farm Board averted a catastrophe, which is doubtful, such a catastrophe would have been very largely the result of prior stabilization operations. The underlying fallacy is based on the theory prices can be controlled by changing ownership." Production and consumption rule, it was added, and not even the Canadian Pool nor the Farm Board have been able to overcome those factors.

"The policy of the Farm Board, beginning over a year ago, had the direct effect of reducing consumption and increasing production. They reduced consumption because they advocated the holding of wheat in this country during exporting season, thereby preventing the exportation of a large amount of the surplus which is now hanging over their heads. They decreased consumption by withholding these supplies from our European customers, thereby encouraging them to use substitutes. And they increased production by encouraging our foreign customers to produce their own wheat."

C. D. Sturtevant, also widely known in the grain trade and another of those who

took sharp issue with the bulletin, protested that its contents seemed more political than economic.

Stripe Rust in Argentina

An Argentine government report is that yellow (stripe) rust infection has affected 14,800,000 acres out of a total grain acreage of 35,418,000 acres, or 42 per cent. How much of the wheat acreage is involved was not stated, except that reduction in prospects as a result of the plant disease amounted to 75 to 80 million bushels. The damage varies according to districts, but the provinces of Santa Fe, Cordoba and Buenos Aires are principally affected.

The pres. of the Farmers National Grain Corporation was a candidate for re-election to the office of pres. of the National Farmers Union at the convention held recently at St. Paul, Minn.; but was defeated by John A. Simpson of Oklahoma City, Okla., as an expression of disapproval of Farm Board policies.

Government buying of wheat on the futures market of Portland, Ore., was advocated by Senators Steiwer and McNary of Oregon in a recent conference with Legge and McKelvie. Legge told Steiwer he would take up the matter with Geo. S. Milnor of the Stabilization Corporation. What the country needs is not an extension but a cessation of government attempts to inflate prices.

Oats Movement in November

Receipts and shipments of oats at the various markets during November, compared with November, 1929, in bushels, were:

	Receipts		Shipments	
	1930	1929	1930	1929
Baltimore	41,678	74,340		
Chicago	1,542,000	1,116,000	1,319,000	2,313,000
Cincinnati	190,000	122,000	292,000	124,000
Duluth		493,670		714,849
Ft. William	1,723,259	433,391	2,580,175	1,362,366
Ft. Worth	82,500	121,500	10,500	21,000
Hutchinson		1,500		
Indianapolis	368,000	382,000	828,000	550,000
Kansas City	248,000	444,000	158,000	268,000
Milwaukee	189,205	361,260	1,016,800	855,299
Minneapolis	737,590	1,553,780	1,157,840	897,200
New Orleans		76,000		76,967
New York	132,000			
Omaha	196,000	708,000	370,000	718,000
Peoria		358,200		329,400
Philadelphia		66,628		
Portland		47,500		26,403
St. Joseph	92,000	64,000	86,000	10,000
St. Louis		991,000		959,000
San Francisco	26,150	15,400		
Superior	331,620	121,930	557,656	247,654
Toledo	418,185	131,200	71,535	20,505
Wichita	4,500	15,000	3,000	6,000

Corn Movement in November

Receipts and shipments of corn at the various markets during November, compared with November, 1929, in bushels, were:

	Receipts		Shipments	
	1930	1929	1930	1929
Baltimore	170,875	481,844	282,375	79,856
Chicago	112,200	423,000	125,900	3,142,000
Cincinnati	116,800	110,400	268,800	396,800
Duluth	5,085,553		9,896,675	
Ft. William	14,615,506	17,010,253	29,240,858	26,584,642
Ft. Worth	155,250	314,550	383,400	723,600
Galveston			399,665	2,802,836
Houston			88,853	1,157,500
Hutchinson	1,324,350	1,406,700		
Indianapolis	90,000	186,000	447,000	429,000
Kans. City	3,607,740	3,294,090	2,488,300	2,956,160
Milwaukee	597,520	16,280	452,700	77,500
Minneapolis	6,531,150	5,331,100	3,053,830	2,846,140
New Orleans			154,858	1,184,134
New York	7,602,500		2,665,000	
Omaha	1,313,600	808,000	2,181,200	1,073,800
Peoria		137,600		148,400
Philadelphia		141,000		38,000
Port, Ore.		2,037,000		1,061,006
St. Joseph	655,500	763,500	342,000	660,000
St. Louis		1,824,200		1,554,000
San Fran	272,200	239,800		
Superior	4,635,375	3,882,171	8,636,780	7,793,136
Toledo	610,945	920,215	249,705	254,175
Wichita	702,000	945,000	864,000	967,500

Cipher Codes

Universal Grain Code: Most complete, up-to-date grain code published. Effects a greater reduction in tolls than any other domestic code. 150 pages, 4 1/2 x 7 inches. Price, leather bound, \$8.00; paper, \$1.50.

Robinson Telegraph Cipher Code: With all supplements, for domestic grain business. Leather bound, \$2.50; cloth, \$2.00.

Millers Telegraphic Cipher: (1917) For the milling and flour trades. 77 pages, 8 3/8 x 6 inches. Cloth bound. Price \$2.00.

Cross Telegraphic Cipher Code: 9th edition revised for provision and grain trades. 145 pages, 4 1/2 x 5 1/4 inches. Cloth bound. \$8.50.

A. B. C. Improved Fifth Edition Code, with Sup.: Reduces cable tolls 50% thru use of five-letter words, any two of which may be sent as one. In English. Price, \$20.00.

Bentley's Complete Phrase Code: Contains nearly 1,000 million combinations, any two of which can be sent as one word. Thru its use a saving of 50% can be effected in cablegrams. 213 pages. Appendix of 60 pages contains decimal moneys and list of bankers. Private supplement of 68 pages; Ciphers arranged in Terminational Order, 40 pages, contains decimal moneys and list of bankers. 8 3/8 x 10 1/2 inches. Leather back and corners. \$10.00.

Baltimore Export Cable Code: Hinrich's fourth edition, completed especially for export grain trade. 152 pages, 6 1/2 x 9 inches, bound in leather. Price \$15.00.

Riverside Flour Code, Improved (5 letter revision): Sixth edition. For use in domestic and export trade. Size 6 x 7 inches, 304 pages. Bound in flexible leather, \$12.50.

Calpack Code (1923) is designed to succeed and replace the codes published by the J. K. Armsby Co., and the California Fruit Canners' Ass'n in the fruit and vegetable packing industry. Size 6 3/4 x 8 1/4 inches. 850 pages, bound in keratol. Price \$10.00.

All prices are f. o. b. Chicago.

GRAIN DEALERS JOURNAL
332 So. La Salle Street CHICAGO, ILL.

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Grain Dealers Journal
332 South La Salle St. Chicago, Ill.

Patents
Granted

1,782,952. Screen for Disintegrating Machines. Arno Andreas, Munster, Germany. Separator comprising a cylindrical outer shell, a boss fixed in the center of shell, a pair of rings fixed to shell in spaced relation and a plurality of individual bars radially juxtaposed in space relation with their outer ends loosely inserted between the rings, the inner ends resting loosely on the boss.

1,783,075. Mixing Apparatus. Geo. H. Haines, Caledonia, O., assignor to the Grain Machinery Co., Marion, O. Mixing apparatus comprising a mixing chamber, an upwardly-extending conduit within the chamber, and an endless conveyer movable upwardly through the conduit and having its downwardly-moving run disposed in a path outside of the chamber.

1,782,670. Indicating Means for Weighing Apparatus. Adrianus Van Duyn, Rotterdam, Netherlands, assignor to Naamlooze Vennootschap Maatschappij tot Vervaardiging van Snijmachines Volgens van Berkel's Patent en van Andere Werktingen, Rotterdam, Netherlands. A weighing apparatus comprising an indicating chart and transparent member of substantial thickness being arranged in front of the chart, one edge of the transparent member itself serving as a datum or reading line for the indications on the chart.

1,781,904. Hammer Mill. Chas. A. Jamison, Philadelphia, Pa., assignor to the Pennsylvania Crusher Co., New York, N. Y. A crushing structure comprising a hopper for the material to be crushed having its bottom made up of spaced bars in the form of a grate, rotary beaters adapted to pass between the bars of the grate into the hopper, a pivotally mounted support for the bars of the grate to which they are fixed at a point adjacent the pivot, and a transverse support upon which the opposite ends of the grate bars may freely rest.

1,780,481. Spiral Conveyor. Stephen H. Hale, Kansas City, Mo., assignor to Gleaner Combine Harvester Co., Independence, Mo. In combination with a conveyer housing having a lateral discharge opening at one end, a shaft rotatable in the housing, a spiral conveyer blade on the shaft, terminating in a wing radial to and substantially parallel with the shaft, and a stop member on the shaft at the end of the housing co-operative with the wing for interrupting travel of grain longitudinally in the housing and diverting the grain into the opening.

1,780,641. Dust Separator. Samuel N. Chew, Thornton Heath, Eng., assignor to Pneumatic Conveyance & Extraction, Ltd., London, Eng. An extractor for extracting dust and grit from air or other medium comprising a closed casing forming a collecting chamber for the dust and grit, outlet means at the bottom of the chamber for the collected matter, and a part-circular tube within said casing, for the passage of the medium, of V-shaped section with the apex of the section at its outer periphery, the tube being open at its ends to the outside of the casing for coupling pipes and having two openings within the casing, one an outlet at its peripheral apex and the other an inlet on its inner side near its inlet end, both openings communicating with the collecting chamber.

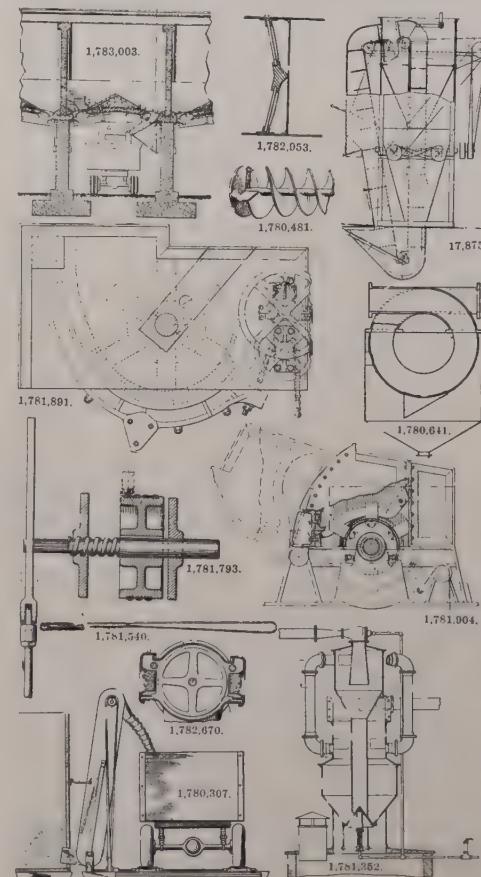
1,781,891. Hammer Crusher. Geo. W. Burton, New Lisbon, N. J., assignor to Pennsylvania Crusher Co., New York, N. Y. The combination with a crushing machine having a frame, an adjustable screen mounted therein, adjustable supporting means for one end of the screen, gearing including a driving and a driven element for actuating the adjustable supporting means, and mechanism for holding the driving element of gearing against movement including a ratchet wheel and a pawl in engagement with the ratchet wheel, of a shear pin support for the pawl,

and a bracket support carried externally of the wall of the crushing machine frame in which the ends of the shear pin are mounted.

1,781,793. Weight Printing Mechanism for Scales. Harry E. Spencer, New York, N. Y. A weighing scales comprising a weighing platform; a rotor provided upon its periphery with a series of numbers running circumferentially around the rotor and transversely across its peripheral face; means operatively connecting the weighing platform to the rotor to turn the rotor when the weighing platform is depressed; and means for moving the rotor axially during its rotation to bring the number indicating the amount of weight on the platform to a fixed point, the means connecting the weighing platform to the rotor automatically returning the rotor to normal position when the weight is removed.

1,780,307. Portable Grain Loader. Arpad McLennan, Kitscoty, Alberta. The device comprises a platform having longitudinal shafts thereon with pairs of rollers adjacent opposite ends; side extensions hinged to the platform; a grain elevator hinged to one end of the platform and supported in upright position thereon for operation; the grain elevator being adapted to be folded down over the platform for transportation purposes; the side extensions of the platform being adapted to be folded up against the grain elevator for transportation purposes; a support on the platform for the grain elevator when the latter is folded down in inoperative position on the platform; and means for transferring power from one of the shafts to the grain elevator to operate the latter when in operative upstanding position.

1,781,352. Pneumatic Conveyor Apparatus. Edgar B. Tolman, Jr., and Hans Brueckler, Chicago, assignors to United Conveyor Co., Chicago, Ill. A compartment for receiving and storing material conveyed by a fluid, the compartment having an outlet opening through which material discharges by gravity, fluid actuated means operable to separate the conveying fluid from the material conveyed, a closure member for the outlet opening, the closure member comprising a vertically movable valve having a downwardly projecting cylinder, a pipe line having one end forming a piston fitting within the cylinder and the other end connected with



a supply of fluid under pressure, and valve means operable to control the flow of pressure fluid through pipe line whereby closure member opens by gravity when valve means is closed and is lifted to seated position when valve means is open.

1,783,003. Storage Bin. Arthur P. Skaer, Buffalo, N. Y., assignor to Eric P. Muntz, Buffalo. A storage bin having transverse walls, longitudinal side walls connecting the transverse walls, and a bottom connecting the lower ends of the walls and including a longitudinal arch connecting at its opposite depressed ends with the lower ends of the transverse walls, and provided adjacent to its depressed end with outlets for the material stored in the bin, the arch being provided on its upper side on opposite sides of its elevated central part with shoulders which face each other, and a deflector arranged above the central part of the arch and engaging its opposite ends against the shoulders and having opposite inclines which slope toward the outlets.

1,781,540. Car Seal. Ivan E. Day, Edgerton, O. A car seal formed of a single metallic sheet shaped with a main portion having side seam flanges and oppositely projecting lock members at its ends, and a shackle strip contiguous with one of its ends, one of the lock members having a projection formed therein, and the other lock member having divergent fingers at its free end and a series of projecting latches between its ends, the free end of the shackle strip having a slot adjacent its extreme end, and a series of projecting latches back of the slot inclined therefrom, and a deflector back of the latches upon the side of the strip opposite thereto, the lock members being folded one over the other and inclosed by main portion which is folded and its flanges clinched together forming a head for the seal, the free end of the shackle strip, when inserted in the head, having locking engagement with one of the members, and the deflector thereof being wedged between the other member and the adjacent wall of the head.

Canadian Tax Payers May Be Assessed for Pool Losses

Truly astonishing documents are the annual reports presented by the Manitoba Pool. Dealing only with the financial features, it is probable that never before has a company had statements of a similar kind presented to it. More than three months after the close of the fiscal year the Manitoba Pool has no idea where it stands financially, and it is clear that it has been able to remain an operating entity only by charging to the Central Selling Agency all the operating expenses of the year. The Central Selling Agency has apparently paid these accounts, and, therefore, must have added these amounts to the overdraft which is guaranteed by the provincial governments. What the legislatures of the three provinces authorized to be guaranteed was only advances by the banks to the Central Selling Agency against grain delivered to the Central Selling Agency up to July 31.

Provincial premiers at the meeting in Toronto in August seem to have consented, without legislature authority, to extend the guaranty to cover any balance of 1929 grain not delivered by the above date. The Manitoba Pool collected \$760,238 on grain delivered to the Central Selling Agency since July 31.

In addition to all this the Central Selling Agency has paid the Manitoba Pool all the salaries and other overhead expenses of operating the local pool during the year, amounting to \$227,008.64, and must have drawn this money from its guaranteed bank account. That there is no legislative authority for this is certain, and it is also certain that the provincial premiers have never disclosed to the public that they had given any undertaking that they would introduce new legislation to make the provinces liable for paying the salaries, rents, travel-

ing expenses, etc., of the three provincial pools as well as of the Central Selling Agency.—*Grain Trade News*.

A Simplified Belt Conveyor

A new roller bearing belt conveyor carrier, known as the "Pacific Type," has just been developed by the Stephens-Adamson Mfg. Co. Timken bearings are used throughout and the carrier is featured for use wherever a high grade conveyor of medium price is wanted.

As the illustration shows, it is of the three roller, 20° trough design now favored by most elevator engineers. The construction is of heavy gauge pressed steel, with the single exception of the end stand castings, making the carrier light in weight, strong, rigid and practically unbreakable.



A Simplified Conveyor Carrier

Each roller turns upon two Timken tapered roller bearings housed within an inner hub of steel tubing and well protected from dust and moisture by an intermeshing labyrinth grease seal for each bearing. The tapered roller bearings used are large in size and are arranged to carry end thrust as well as radial loads. The inner hub extends the full length of each roller and prevents misalignment of bearings. A unique arrangement has been provided for adjusting and setting the bearings for proper clearance. Positive lubrication is insured by an individual Alemite fitting for each bearing. Every roller, with its bearings, shaft and grease seals, is a self-contained unit that can easily be interchanged with any other roller without disturbing the bearing adjustment.

The cross member is a single structural steel angle, formed and punched to eliminate all but one standard pressed steel bracket that is interchangeable for all sizes of carriers. The angle is self-cleaning and eliminates any tendency for material to collect and hinder the free action of the rollers.

In many respects the "Pacific Type" is similar to the S-A Simplex carrier, which

has been one of the higher grade belt conveyor carriers on the market. The "Pacific" carrier is built in sizes for conveyor belts from 18 to 48 inches wide and its clearance dimensions such as backing, bolt spacing and overall dimensions are practically the same as other types of belt conveyor carriers.

Senator Capper, who is in the publishing business, and who should know better, says that the people of Kansas have lost all confidence in the Chicago grain markets. If he will just take one minute to examine the figures, however, he will discover that almost three times as much corn was marketed through Chicago during the crop season ending Nov. 1, as through any of the other terminal markets and over 3 million bushels more oats since Aug. 1, than through its nearest competitor, and that with no great wheat fields at its doors; with a comparatively small local demand for wheat for grinding into flour, and with an uneven break in wheat export rates, it is still one of the big 6 in receipts of that grain, thus far this crop year.

A Labor Saver on the Scale Beam

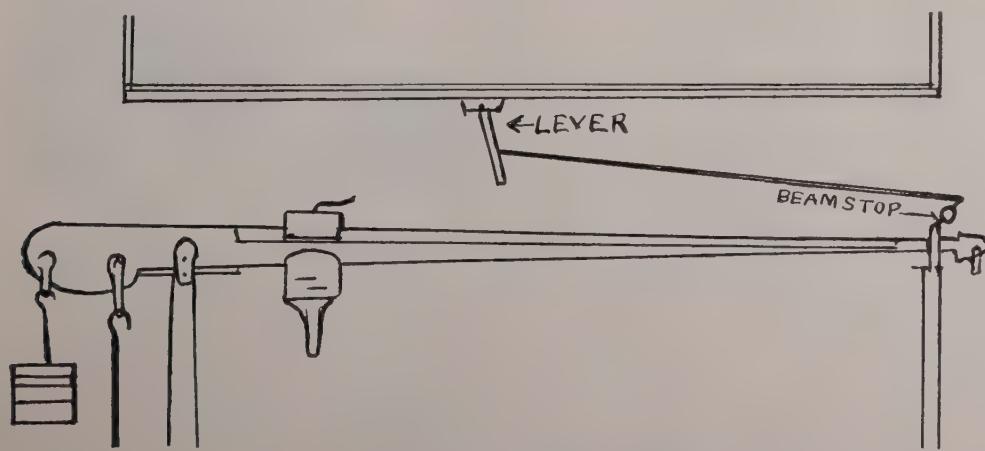
Sam Allen, manager of the Farmers Co-operative Grain Co. at Pleasant Dale, Neb., uses his head to save his feet.

The beam on Sam's scale is one of those great, long ones that require about two steps to reach the beam-stop after it is balanced. Steps take time, and after being taken to reach the beam-stop they must be repeated to read the poise and record the weights on the type register.

Some elevator managers, presented with the problem of a long scale beam, just disregard the rules for good scale practice and fail to make use of the beam-stop because of the effort required to reach it. But Sam wanted to abide by the rules and at the same time save himself unnecessary effort.

Right above Sam's scale beam is a shelf on which he keeps old record books and other supplies. To the bottom of this he affixed a hinge, holding a short lever depending over the scale beam. From a point part way down this lever he ran a light rod to the weight ball that holds the beam-stop in position. A hole was drilled in the top of this ball and threaded to admit a clevis-shaped screw, which constituted the hinge between the ball and the rod.

Now when the beam is balanced Sam's hand is only a few inches from the lever and a simple movement stops the beam without the necessity for taking steps to reach the scale beam-stop. The illustration herewith shows how it was done.



Labor Saver Scale Beam

Supply Trade

Chicago, Ill.—During the month of November the Zeleny Thermometer System was installed in 34 bins for the Gooch Milling & Elevator Co., Lincoln, Nebr. 41 bins for the Searle Grain Co., Fort William, Ontario, Canada.

Many businesses are underadvertised. There is no half-way house. The advertising must be equal to the opportunity. Too little is no better than none at all. If the persimmons hang ten feet high a nine-foot pole is no better than a two-foot pole to get them.—E. E. Calkins.

Muncy, Pa.—H. N. Vredenburg, who has been representing Sprout, Waldron & Co., Inc., mill builders and furnishers, for the past 15 years, has been promoted to sales manager. He has been located at Syracuse, N. Y. Mr. Vredenburg is widely known in milling circles, and goes to his new position exceptionally well equipped to assume his new duties. He has moved to Muncy.

St. Louis, Mo.—The Morse Chain Co. exhibit, Booth B-102 American Road Builders Ass'n Nat'l Convention, St. Louis, should prove particularly interesting to designers and builders of road building equipment. Many of the leading manufacturers of power shovels, hoists and other material handling units are equipped with Morse Silent Chain Drives. One novel display permits the observer to watch the true action of the patented Morse Rocker Joint. Another shows how the improved Morse Automatic Ring Oiler insures proper lubrication. The Morse Chain Speed Reducer and Flexible Coupling are hooked up to demonstrate how the chain type coupling takes care of end thrust and shaft misalignments. The Morse exhibit will be in charge of D. M. McSpadden and H. G. Bates. Several competent engineers from the factory will be on hand to explain technical details. A. B. Wray, sales manager, and F. G. Anderson, promotion engineer, will also be in attendance.

Mr. Legge, head of the farm board, admits that the government now holds 70,000,000 bus. of wheat. The government is supposed to have bought the millions of bushels to avert a crash in prices. The question is, would such buying avert or precipitate a crash.—Arthur Brisbane in the *Cleveland News*.

Dust Collector Patent Suit

To defeat the claims by Robert L. Bobbitt for royalties of \$6 on each long cone dust collector the attorneys of the Millers National Federation desire information of any dust collector of the cyclone type in which the length is substantially three times the diameter, in use before November 27, 1912, in any flour mill, saw mill, cement works, planing mill, spice mill, wood working plant or any other place? Full particulars giving measurement of the machine, if possible a drawing or photograph of it and its present location, if it is still in existence, and if it is not now in existence, the names of all persons who have first hand information concerning it, are requested.

Bobbitt has brought suit against the Midland Flour Milling Company for alleged patent infringement. Since nearly all mills use this type of dust collector, and since it is believed that they were used prior to the date of application for patent, the directors of the Federation voted unanimously to defend the suit.

Grain Carriers

Date for the closing of navigation on the Great Lakes has been issued. The Canadian canal at Sault Ste. Marie will cease to function after midnight, Dec. 14.

N. Y. State Barge Canal traffic up to November 16, according to the official report, amounted to 3,505,222 tons, an increase of 725,436 tons over 1929 and a new high record.

Connections have been established at Cincinnati with nine railroads for New Orleans and gulf coast shipments, according to announcement just made by officials of the Mississippi Valley Barge Line Company.

The latest development, in the Philadelphia warehouse situation, is the granting of another stay which will postpone the effectiveness of the I. C. C. order pending hearing on an application for a review of the case by the U. S. Supreme Court.

St. Catharines, Ont., Dec. 5.—The freighter John Ericsson, the largest vessel to sail Lake Ontario, entered the Welland Canal today en route from Port William to Toronto with a cargo of 225,000 bushels of grain. The ship is 382 feet long and of 3,200 gross tons.

Reductions of approximately 20 per cent in intrastate freight rates, affecting grains and grain products, were ordered by the public service commission of Oregon on Nov. 29. The reductions are to be effective when the interstate rates are reduced, and are in line with those recently announced by the I. C. C.

Absolute repeal of the excess railroad earnings recapture provisions of the Interstate Commerce Act, together with the clause providing for a general railroad contingent fund comprising the excess earnings recaptured from the carriers, was recommended by the Interstate Commerce Commission in its 44th annual report to Congress Dec. 4.

Baltimore, Md.—The only way in which American ships can compete with vessels of foreign maritime countries is through contributions from the U. S. treasury "sufficient to offset the subsidy contributions extorted for the benefit of our competitors' ships, from the wages of labor in foreign maritime countries," E. C. Plummer, Vice Chairman of the United States Shipping Board, declared Nov. 25.

Net operating income of all class I railroads in the United States declined more than \$343,000,000 in the first ten months of 1930 as compared with the similar period of 1929, a statement by the committee on public relations of the lines revealed. Earnings of the road in the ten months period this year, figured on property investments, were at the annual rate of 3.51 per cent as compared with 5.19 per cent in the first ten months of 1929.

A petition for a writ of certiorari to the Circuit Court of Appeals for the eighth circuit in No. 497, C. I. & L. Ry. Co., vs. International Milling Co., was denied by the Supreme Court of the U. S., Nov. 24. The carrier sued to recover alleged undercharges in the amount of the difference in charges calculated at 10 cents and 17 cents a hundred pounds on grain products, Chicago to Louisville, between Nov. 28 and Dec. 8, 1925, which shipments originated northwest of Chicago. The district court held that 10 cents was the lawful rate and this was upheld by the Circuit Court of Appeals.

Fort William, Ont., Dec. 1.—Every grain boat in the harbor was loaded and cleared before the higher insurance rates came into force at midnight last night. The elevators were kept working all Sunday and the cargoes were loaded with little difficulty, there being only eight vessels to be loaded. They carried out in all 2,430,000 bushels, of which 1,775,000 were wheat. The big freighter Lemoyne, carried 533,000 of wheat, oats and barley to Port McNicoll.

Washington, D. C.—War department plans for expending \$3,950,000 on the Illinois river system of waterways during the 1932 fiscal year have been announced by Maj. Gen. Lytle Brown, chief of engineers. Of this fund \$2,850,000 is for use on the Lockport-Utica section, the balance to be expended between Utica and the mouth of the Illinois river. This allotment is exclusive of such appropriations as may be made available by congress for construction work on the Lockport-Utica project prior to July 1 next.

Montreal, P. Q., Dec. 7.—The whaleback steamer John Ericson of Midland, 382-foot freighter of the Great Lakes Transit Company, and first of the upper lakes grain carriers to pass through the locks of the New Welland canal, docked at the Toronto Elevator Company's wharf at 11 o'clock Saturday, with a cargo of 170,000 bushels of mixed grain from Fort William. When the John Ericson left Fort William she carried 225,000 bushels of grain with a draught of twenty-seven feet. The latter was reduced to sixteen feet to go through the canal by unloading 55,000 bushels at Port Colborne. She will be partly unloaded at the Toronto elevators and then anchored in the bay, to be unloaded further when there is room in the elevators.

When the emergency rates on feedstuffs shipments into the drouth districts were put into effect in August, a good many acted upon the assumption that the reductions would apply on the feedstuffs part of mixed cars of feed and flour, though there was no provision to this effect in the proclamation by the railroads. Many shipments were accepted by the carriers on this basis, but lately we understand that the railroads have decided that these were under-charged and are collecting accordingly from shippers or receivers. Our information is that split shipments were not legally entitled to the reduced rates, even on the feed portions of the cars, and that where the carriers demand reimbursement to bring their returns up to the regular rate there is no proper basis for refusal to pay them.—*The Hook-Up*.

Resolutions scoring the Farm Board were adopted Oct. 31 by the Norfolk Cotton Exchange: "While we freely admit the right of any group to form co-operative associations, built by their own efforts and their own money, we object strenuously to the discrimination practiced in lending Government funds to the co-operative associations while at the same time excluding reputable cotton merchants from this kind of financing and the privileges attending the same."

As world markets sagged it was only natural that any one, owning wheat on which money would be advanced or wheat taken by farm board agencies at prices far in excess of what could be realized on it elsewhere, would swallow the bait and join up, temporarily at least, with any thing or any body that would pay such a foolish premium for the privilege of putting the hook in him. When they get down to earth, as they may some time and find that such discriminatory tactics cannot prevail indefinitely, will those that have been coerced stay hooked?—Knutte Knutesen.

The Grain Rate Case

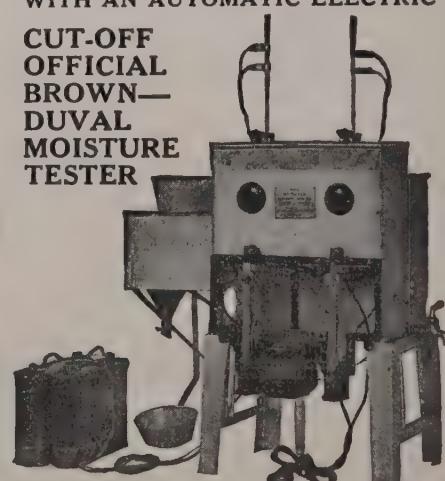
In response to the petition of the Western railways for a further postponement in the effective date in the Grain Rate Case (part 7 to 17000) the I. C. C., has issued an order postponing the date to Apr. 1, 1931. In its announcement the Commission said it was convinced that it would be physically impossible for the carriers to compile and to file the necessary tariffs in time for them to take effect on Jan. 1.

The Commission, in fourth section order 10490, issued in answer to application 14189, filed by E. B. Boyd, H. G. Toll and F. A. Leland, has authorized the carriers to establish rates on grain and grain products ordered by it in this case, on the existing basis in so far as the fourth section is concerned. In other words, the Commission gives relief so that the rate structure prescribed may be substituted for the rate structure now in existence, without any change in so far as fourth section relief is concerned except as the present relief is limited by the findings in the grain decision itself.

The executive officials of the more important Western lines have had several conferences concerning this decision and their financial condition generally and at the annual meeting of the Ass'n of Railway Executives drew up a number of recommendations for the consideration of Congress and the I. C. C. No word has yet been given as to whether or not the carriers will seek to enjoin the enforcement of this particular decision, but it is intimated that if they do not, some of the industries that will be severely handicapped through the proposed curtailment in milling in transit privileges, will doubtless take that action, unless, of course, the carriers go just as far as they can, under the order, in maintaining the present rules.

As one of the arguments in favor of the reduced grain rates is that the reduction in

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transit privileges will give them back much of the money lost thru the reduced rates, they will hardly feel disposed to be liberal if given no relief from the grain rate part of the order.

Tariff Suspended

In I. and S. 3545, the Commission suspended from December 1 until July 1, schedules in the Sup. 17 to I. C. C. 1238 and I. C. C. 1248. The suspended schedules propose to cancel the application of alfalfa meal rates which apply on alfalfa hay, car-loads, from points in Arizona when milled in transit and forwarded to eastern trans-continental destinations, and apply in lieu thereof the rates on alfalfa meal or alfalfa hay, whichever are higher.

New Complaints

In 24024. Tarr & McComb Corporation, Los Angeles, Calif., vs. S. P. Illegal charges, oats, Ft. Worth, Tex., to Redlands, Calif., via Puente, Calif. Asks for reparation.

In 24015. Albers Bros. Milling Co., San Francisco, Calif., vs. S. P. Unreasonable demurrage charges on grain and grain products, at Oakland, Calif. Asks for reparation.

In 24012. P. L. Zimmerman Co., St. Louis, Mo., vs. M. P. et al. Unreasonable rates, bulk millet, Galatea, Colo., and other points in Colorado to points in Missouri and Ill. Asks for reparation.

I. C. C. Decisions

In 23003. Southard Feed & Milling Co. vs. A. T. & S. F. et al. The complaint was dismissed for want of prosecution.

In 23603. Gurney Seed & Nursery Co. vs. Union Pacific. Examiner L. P. J. Fichthorn, proposed dismissal. Weight used in computing charges on one carload of clover seed, Spalding, Neb., to Yankton, S. D., was not shown to have been improper.

In 23178. Good Brothers Seed & Grain Co. vs. C. B. & Q. et al. The motion of complainant contained in its exceptions to the proposed report of the examiner, for further hearing in this case concerning question of undue prejudice and resultant damage to complainant has been overruled.

In 23597. Rea-Patterson Milling Co. vs. Missouri Pacific et al. Examiner Paul R. Naef proposed dismissal. Rates on grain from points in Kansas to Coffeyville, Kan., there milled in transit and the flour and other grain products shipped to destinations in Louisiana and Mississippi were declared not unreasonable.

The Commission has reopened 4844, the bills of lading case, for further hearing on that part of its most recent utterance in respect to the domestic bill and live stock contract, which disapproved the issuance of carbon copies as original bills of lading, if such bills, in all other respects, conform to the forms approved by the Commission in its earlier reports. The reopened case has been set for hearing before Examiner Simons, in Washington, December 18.

In Case 23178, Good Bros. Seed and Grain Co. vs. C.B.&Q. et al., the motion of the complainant contained in its exceptions to the proposed report of the examiner in which it asked for further hearing, has been overruled by the commission.

In Case 21654. Kansas Flour Mills Corp., filed a complaint against the A.T. & S.F. attacking demurrage charges on cars of grain at Hutchinson and the commission found that the shipments were intrastate. The complaint was therefore dismissed.

Legge Explains Why Pools Fail

Alex Legge, chairman of the Federal Farm Board, in a recent address at Washington before the Ass'n of Land Grant Colleges, spoke of "illusions" held by farmers. He said:

"In studying the causes of failure one common cause seems to exist in all. The farmer joins, paying his little initiation fee or signs the contract, or both, in many cases without having a very clear understanding of what it is all about and feels that having gone that far it is up to somebody else to do the rest. He utterly fails to exercise the prerogatives of the stockholder or member, pays no attention to electing the board of directors or to seeing that through the board of directors the proper management is employed. This naturally leads the management in too many cases to conceal the facts when something goes wrong. Every business has its reverses—cooperatives must naturally expect the same. Where none of the members is paying any attention there is too great a temptation for the management to withhold information from the membership until the situation becomes so serious that it can no longer be concealed. The farmers in joining the organization should be taught it is their duty and obligation to exercise the proper function of stockholder or director and to insist that they be kept informed.

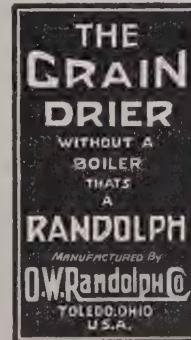
"Perhaps one of the most piteous features in this whole situation is that many farmers

have been led to believe that thru some mysterious process the government or somebody else could remove and dispose of any surplus quantity of anything that he was able to offer; that working out or improving the situation would necessitate no action whatever on his part, that his representative in the state legislature or Congress would find the happy solution for all his troubles.

"The longer the farmer holds to these illusions the longer will be the period required to find any satisfactory solution for his problem. The Government can aid and assist him, first in ascertaining and bringing to him facts as to what the situation is, second, offering suggestions as to how his problems can be met, and lastly, helping finance his co-operative organizations, but in the last analysis he has to do the job if anything is to be done."

A combined harvester for corn has been perfected that moves thru a field of standing corn, cuts the corn stalk off at the ground, and shucks, shells and cleans the corn, depositing it in a grain bin on the machine ready for the wagon box or sack.

We now have in this country several million men out of work, and if production is cut 20 per cent, as formerly advocated by Chairman Legge, we will have another million or two of idle men; and so we wonder how these millions of men and their families, out of work, will be able to eat at all when prices have advanced by curtailing production.—Holstein, Ia., *Advocate*.



Season's Greetings

The good will of our patrons and friends is one of our most valuable assets. The spirit of the season brings to us renewed appreciation of old associates and of the value of new friends. May your Christmas be happy and success attend your New Year, is the cordial wish of

O. W. Randolph Co.
Toledo, Ohio

Insurance Notes

Pyrophoric carbon forms by continued heating of wood below the point of ignition, as under stoves or where stove pipes pass close to woodwork; and, after formation, is subject to spontaneous ignition, making it advisable to protect such wood by asbestos and metal, preferably with free air space.

The vacuum tube, made familiar in the radio set, can be used in place of the fusible outlets of automatic sprinklers. The tube will release the water by the light before the fire has got hot enough to spread. Dr. Philips Thomas, research engineer of the Westinghouse laboratories, in a demonstration at Chicago recently said: It is almost human. I got too close to the fire one day and it squirted all over me. I'll swear I heard it chuckle. It would be operated from ceilings, with a number of photo cell units and wide area lenses covering the floor. The present sprinkler system needs heat to turn it on. This will need only the light from the fire, and it would operate in the restricted surface of the light.

Denver, Colo.—Friction is one of the commonest causes of fires, and the operation of machinery without load just because it is belted up with machines under load, simply adds that much to the fire hazard. Such machinery running idle usually is not given the attention of the workers about the plant who are elsewhere and a fire may start undiscovered. After the leg had run idle during the day in the elevator of the Summit Grain Co. the watchman, next morning, discovered fire in the cupola, which fortunately was extinguished promptly by the city fire department. Investigation disclosed that the fire had started in the idle elevator head that had been running. Much of the expense of running machinery without load can be avoided by generous installation of friction clutches, or by individual electric motor drives.

Books Received

CORN DISEASES in Illinois contains chapters on "Nature of Plant Diseases," "Distribution of Corn Diseases in Illinois," "Methods of Disease Control," "Seedling Diseases," "Diseases of the Aerial Parts," "Root Rots," "Stalk Rots," "Lead Diseases," "Ear Rots" and "Fungi." Losses to dent corn in the state as a whole have been conservatively estimated at 20 per cent. Damage from corn diseases can be greatly reduced by the carrying out of a general program of control measures, and these general measures can be used by any interested farmer whether he is able to distinguish the various diseases or not. Paper, 164 pages, indexed and beautifully illustrated; by Benjamin Koehler, Ill. Exp. Sta., and Jas. R. Holbert, U. S. D. A. Bulletin No. 354, University of Illinois Agri. Exp. Sta., Urbana, Ill.

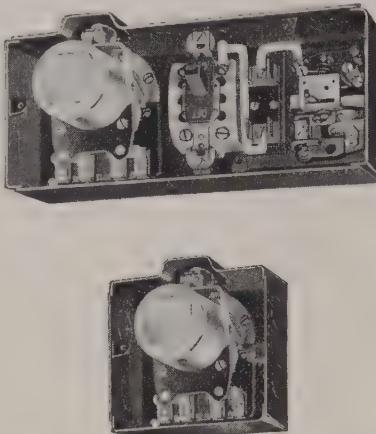
BULK GRAIN HANDLING EQUIPMENT, by Roy Bainer and J. D. Long, agricultural engineers, offers practical suggestions to grain growers who would abandon the wasteful method of handling grain in sacks. The authors write: Handling grain in sacks, rather than in bulk is a peculiar feature of California agriculture, a feature which investigators are unanimous in declaring uneconomical under present day conditions. It has evolved from a day of limited rail transportation facilities and from the necessity of sailing vessels having a cargo which would not shift in making the hazardous journeys "around the Horn." Putting grain in sacks now as it is threshed results in sack costs, higher harvest-labor charges, field waste from rodents, theft and burned or broken sacks, higher warehouse handling and storage charges, insurance and waste and less incentive to improve the quality of

the grain by cleaning out the dockage at country points. Paper, 25 pages, illustrated. Circular No. 47, College of Agriculture, University of California, Berkeley, Cal.

Improved Control for Air Compressors

Starting the motor is the obvious but not the only service required of the switch controlling the electric motor that drives the pump supplying the compressed air for the wagon dump.

The user is satisfied if the switch starts the motor; but it is more important that the motor stop automatically and promptly when the required number of pounds pressure has accumulated in the tank, and especially if the motor becomes overloaded. The pressure switch hitherto in use, opening and closing the motor circuit in the tank, does not protect the motor from an overload.



Pressure Switch and Overload Breaker for Air Compressors

A makeshift protection against overload is the common fuse, but these are easily tampered with and will blow out on a momentary excess of current in nowise harmful to the motor, necessitating wasteful replacements. Far better are the overload relays and thermal cut-outs that operate only after a continued overload.

The latest development is a combination pressure and magnetic switch that performs the normal functions of stopping and starting the motor according to the air pressure, but stops it automatically in case the motor becomes dangerously overloaded. The manufacture of this improved switch includes in the combination an automatic valve to release the air pressure between the check valve and piston, the resulting absence of back pressure making it extremely easy for the motor to start. In the engraving herewith is illustrated one of these improved switches with the cover removed to show arrangement of pressure switch and overload breaker.

Electric Voltage and Power Costs
By J. C. WESTERFIELD, field agent Western Grain Dealers Fire Ins. Co.

In the past few years there has been considerable improvement in country elevators changing from gasoline to electric power.

Recent inspections have disclosed many electrical installations far from the standard of the National Board of Underwriters. This is due to the ignorance of the mechanic who installs the motors and wiring and partially to the lack of co-operation by the local power company.

Transformers Too Far Away.—In a number of cases we have found the transformers too far away from power or motors. This causes line drop and consumer is not getting the voltage he is entitled to. Low voltage causes motor to lag and not give the power scheduled. Low voltage also causes feed wires and motor to heat, this naturally results in fuse heating and blowing out.

Wire sizes may have been large enough to take care of needs when installed but with addition of larger motors to take care of added machinery, the wire is overloaded. Wire can only carry its rated amperage with safety so when load is increased, and by that I mean adding new motors, care should be exercised to avoid overloading wire.

It is sometimes necessary to ask the power company to increase the size of the wire from their transformers to the building and it is also necessary to increase wires inside the building.

Extension cord made up of ordinary No. 18 cotton covered lamp cord has poor insulation that in a short time frays out and wears thru, causing short circuits which results in either the cord burning in two or blowing a fuse on lighting circuit. We earnestly advise either a rubber covered or packing house cord for these extension cords.

Plugged Fuses.—In a number of cases where fuses were burned or blown out we have found a plug made of tobacco tin or a piece of wire or a copper bar has been used, instead of installing a refill or new fuse. There isn't a man here who, if he were operating a steam plant, would think of tying down a safety valve to get more power, but that is exactly what he is doing when he plugs a fuse. Of course there isn't a steam explosion and a boiler blown to pieces but the fuse is the safety valve to the electric circuit and he may pay the price of a new motor or installation of new feeds from this practice.

Fuse protection should be guarded with care, 100 ampere fuse for a 30 ampere load does not mean a thing, as there is no protection at all.

All switches and fuse blocks should be enclosed in a dust proof fire resisting box. A dust tight asbestos lined wooden box is much better and safer than fuse blocks or knife switches open on the wall but the asbestos lining is easily torn so we advise enclosing in a dust tight metal cabinet.

Power companies are changing with the times and the single phase motor with its open commutator and spark throwing brushes is rapidly giving way to the enclosed type dust-proof three-phase motors.

Wherever it is at all possible, the frame motors of over 1 h. p. should be grounded.

If the elevator is wired in pipe or conduit, the grounding of the entire system will reduce that hazard considerably.

The price of flour is not the governing factor in the price of bread, according to the Day Dreams of Burocrat, which finds that "if the farmer gave his wheat for nothing, if the miller milled his flour for nothing, if the railroad hauled the flour for nothing, bread would cost the baker 4.2 cents per pound loaf."

F I R E



can quickly consume your business, which has taken years to build up. Fire Barrels at strategic places throughout your elevator provide good protection against this menace.

Write for particulars relative to our better Fire Barrels and High Test Calcium Chloride which prevents freezing and evaporation.

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Danger from Static Electricity on Belt Drives Eliminated

By ROY C. MOORE

Static electricity has always been a source of danger in certain industries. This is particularly true of grain elevators and flour and feed mills where dust explosions are to be vigilantly guarded against. The ordinary belt drive has given some trouble as a generator of static and attempts to overcome the difficulty have been almost entirely ineffectual or only partially successful.

The generation of static electricity on belt drives is caused by the natural creeping of the belt on the pulleys. Even though the creep, in many instances, is less than one-half of one per cent, it is sufficient to generate sizeable charges under favorable conditions.

Generally, in damp weather, the belt drive does not generate large enough charges to cause sparks to jump. This is due to the fact that when the fibres of the leather belt are moist the belt is a fairly good conductor and will lead the charges off to the pulleys about as fast as they are generated. On the other hand, dry atmospheric conditions are an ideal medium for the functioning of static troubles. A well dried out belt is a good insulator and as the charge collects on the outer surface it continues to build up until it reaches the proportions of a spark and jumps to the nearest grounded object.

One among the many means adopted for eliminating static charges has been to hang wire gauze over a belt, allowing it to drag on the slack strand, and then grounding the wire gauze. This has not been satisfactory because the collectors have been too often neglected, get out of order, and fail to ground belts properly.

The Bureau of Chemistry, Department of

Agriculture, recently found that by dressing a belt thoroughly with a mixture of lamp black, or carbon, and fish glue, they were able to impart a surface that would conduct the charge from the belt to the pulleys, and then by grounding the equipment they were able to lead off the charge as fast as it accumulated. While this method has merit it is not entirely ideal because it requires frequent dressing of the belt which, in itself, is not permanent.

A permanently static proof belt has recently been developed in which a row of copper wire stitching along each edge makes contact with the pulleys at all times. In this way static charges which normally collect on the outer surface of the belt are led off through the belt by means of the wire stitching. It is then only necessary to see that the machines are well grounded to avoid any further danger from static charges. Beltting made in this way is permanently static proof.

Corn Borer Restrictions.—There seems to be some difference of opinion among our members concerning shipments of shelled corn out of corn borer infested territory into uninfested territory. Revisions of Regulations No. 5 and No. 6 of the U. S. Department of Agriculture, effective Aug. 20, 1930, permit shipping of shelled corn out of infested areas **only when cleaned**. "No permit or certificate is required for interstate movement of clean shelled corn, broom corn seed, sorghum seed, or sudan grass seed." Any shelled corn, **not cleaned** (in the literal interpretation of the term) shipped out of infested territory **MUST** be inspected by an authorized state or federal inspector before car can be billed out.—Fred K. Sale, sec'y, Indiana Grain Dealers Ass'n.

Grohoma

Apparently the U. S. D. A. does not think so very well of the new feed crop "Grohoma," concerning which a short story was printed on page 523 of the Oct. 22nd number of the Journal, for, in a recent bulletin, headed "Warns Farmers of False Claims for New Grain, Grohoma," it thus comments on the new grain:

Farmers should not accept the claims advanced for a new grain sorghum, called Grohoma, which has been offered at prices twenty to fifty times those of well-known and adapted varieties. The claims in regard to the origin and value are sensational and inaccurate, sorghum specialists of the Bureau of Plant Industry say. There is no reliable evidence that Grohoma is superior to or will outyield other well-known varieties which have been tested and which may be recommended on the basis of experimental tests. Present information, says the bureau, does not justify an exorbitant price for the seed of an almost unknown and untried crop.

This is the first season, says the bureau, in which seed of Grohoma has been merchandised to any extent. Consequently it is the first year in which the Depart. of Agri. and the State experiment stations have had opportunity to test it in the experimental plots. The crop has not yet been threshed and reliable reports of the yields of Grohoma are not yet available for comparison with the records of established varieties of grain sorghums. Specialists, however, have observed Grohoma in comparative experiments in many localities, and they have found that Grohoma is more easily injured by drought than are several well-known varieties of grain sorghums. There is no evidence available which indicates that Grohoma will outyield good varieties of milo and kafr even under normal or average conditions.

The grain-sorghum specialists describe Grohoma as medium-late in maturity and unlikely to mature safely north of Kansas, Missouri and Illinois. Grohoma has sweet stalks which are dry (not juicy). Under favorable conditions and in thin stands it develops large bushy heads, but they point out that large heads are not necessarily associated

[Concluded on page 770]

Hess Direct Heat Driers

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WITHOUT
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1,000 Bushel Hess Direct Heat Drier and Cooler

Crowell Elevator Company
I. C. Railway Elevator, Omaha, Nebr.

LET US PLAN A GRAIN DRYING PLANT FOR YOU

Field Seeds

Seed Trade Notes

Indianapolis, Ind.—The Indiana Seed Co., of this city, has filed papers evidencing preliminary dissolution.

Wichita, Kan.—L. B. Ross has joined his father in the seed business. Mr. Ross was formerly with the Allied Laboratories, Inc., of Chicago.

A tentative date of Jan. 6, has been set for the annual meeting of the Mo.-Ill. Soft Wheat Crop Improvement Ass'n. It will be held in St. Louis.

Yankton, S. D.—Receivership for the Gurney Seed & Nursery Co. was asked in a petition filed Nov. 26 in circuit court. Defendants in the action are the Gurney Corp., D. B. Gurney, E. R. Gurney, J. C. Gurney, C. Christol and J. B. Gurney.

Seeds for agricultural uses are made exempt from the 10 percent ad valorem import duty in French Morocco and will hereafter be subject only to the regular import tax of 2 per cent ad valorem (C. I. F. value) according to a Decree of September 17.

Columbia, Mo.—The Annual Certified Seed Show and Good Seed Conference is to be held in room 100, Waters Hall, on Dec. 17 and 18. A dozen good speakers are on the program and a general invitation to attend is extended to those who may be interested.

Seattle, Wash.—Charles H. Lilly, pioneer, seed and grain man, died suddenly Nov. 19. He was 70 years old and was on the job the day before his death at his office in the Charles H. Lilly Co., of which he was chairman of the board. Death was due to a heart ailment.

Colorado Springs, Colo.—W. E. Doner of Colorado Springs was elected president of the Colorado Seed Growers Ass'n at the annual meeting of the organization held at the Colorado pure seed show headquarters in the municipal auditorium. Other officers elected are: J. G. Eri on Pueblo, vice president; Raymond Congdon, Platteville, secretary, and J. Fred Flook of Colorado Springs, treasurer.

Directory

Grass and Field Seed Dealers

AMARILLO, TEXAS.

Hardeman-King Co., field seed merchants.

CHICAGO, ILL.

Warren-Teed Seed Co., field seeds.

CONCORDIA, KANS.

The Bowman Seed Co., wholesale field seeds.

COUNCIL BLUFFS, IOWA.

Council Bluffs Seed Co., seed corn, nothing else

KANSAS CITY, MO.

Rudy-Patrick Seed Co., field seed merchants.

LOUISVILLE, KY.

Louisville Seed Co., seed merchants.

MILWAUKEE, WIS.

Courteen Seed Co., field seeds.

PHOENIX, ARIZ.

Capital Fuel & Feed Co., hay, alf., Berm., sor. seeds.

ST. LOUIS, MO.

Cornell Seed Co., field seed merchants.

Mangelsdorf & Bros., Ed. F., wholesale field seeds.

SEDWICK, KAN.

Sedgwick Alfalfa Mills, field seed merchants.

H. R. Kraybill, Indiana State Seed Commissioner, says that the result of inspection work for the past few years indicates a very marked improvement in the quality of seed that is sold under the provisions of the Indiana State law. He says, however, that there is still a great deal of seed sold in the state which is not subject to the provisions of the law and in a majority of such sales, seeds are untested. He warns against the use of untested seed as being a prolific cause of dangerous weeds and he calls attention to this in the following language, "A very striking example came to our attention when a farmer advised us that his 65-acre field of clover was thoroly infested with dodder. Investigation showed that he had used untested seed procured from a neighbor and analysis of a sample of the seed left over, showed that there were 250 dodder seeds to every pound in what he had sowed on his 65-acre field."

Grohoma

[Concluded from page 769] with large yields. They consider it probable that Grohoma is about equal to other grain sorghums in feeding value and that the protein content of the grain is about the same. They regard as "fantastic" the stories of the origin of Grohoma, and say that the stories are not substantiated by the characteristics of the crop. They believe it is probably the result of a cross between feterita and some sorgo (sweet sorghum or "cane").

Seed Inspection in Illinois

In the annual report of Albert C. Wilson, Illinois State Seed Analyst, he shows that 9496 samples of seed were analyzed during the year ending June 30, 1930, against 4261, during the preceding year. Out of the last year's total 1178 were found to be unsalable, compared with 659 the year before. The percentage of unsalable seeds during the past year was 12.41, against 15.44 for 1928-29.

Inspection of seed offered for sale by seed dealers was only carried forward in a limited way due to lack of travel funds. A total of 81 samples were taken of which 8 were found unsalable. The samples included 18 of sweet clover, with 1 unsalable; 14 samples of red clover of which 3 were unsalable; 12 samples of alfalfa, all salable; 11 alsike, of which 2 were unsalable; 8 mixture, all salable; 6 timothy, all salable, and 4 mammoth clover of which 2 were unsalable.

That part of the report dealing with weed control, says, among other things, that noxious weeds are causing Illinois farmers more each year than they have to pay in taxes, and this loss is figured as follows:

"Assuming weeds would displace about 3 square feet in each square rod, we find that this would amount to at least one acre in every hundred. The average return per acre for 1929, as computed by the Federal Crop Reporting Service, was a trifle more than \$22. For the sake of easy figuring, let us place it at \$20, or a loss of \$20 on each 100 acres. With 20,000,000 crop acres of land, the loss for Illinois would be, on this basis, \$4,000,000 yearly."

Farm Seed Meeting

Secretary Smith, of the Farm Seed Ass'n, says that no definite program is being outlined but every effort is to be made to have every one present join actively in discussion on the floor. As usual, the meeting of the members will be an executive session on Jan. 13, with a meeting of the Board of Directors on the 12th. All meetings will be held in the Stevens Hotel, Chicago.

Seed Trade Marks

Whitney-Eckstein Seed Co., Buffalo, N. Y., filed ser. No. 305,427, the word "Eureka," for clover seeds, grass seeds, and mixtures thereof.

Bonide Chemical Co., Inc., Utica, N. Y., filed ser. No. 306,339 the word "Crow-Fez" for a preparation for protecting seed against birds and animals.

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**ALFALFA BLUE GRASS
SUDAN MILLET and CRANE**
WRITE FOR SAMPLES AND PRICES
RUDY - PATRICK SEED CO.
Kansas City, Mo.

CORNELI SEED CO.
FIELD SEEDS
BUYERS & SELLERS
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McGregor Milling & Grain Company
McGregor, Texas

CRABBS REYNOLDS TAYLOR CO.
CRAWFORDSVILLE, IND.
GRAIN
Clover and Timothy Seeds
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St. Louis, Missouri

Grain Show Prize Winners

In winning the wheat championship at the International Grain Show, in Chicago, Nov. 29 to Dec. 6, Herman Trelle, of Wembley, Alberta, exhibited hard red spring grain that weighed 67.5 pounds to the bushel, and it was grown 150 miles from rail transportation, and within the Arctic circle. This is Mr. Trelle's second championship, the first having been won at the 1926 show.

This was not the only championship won by Canada, for Geo. Avery, of Kelso, Sask., won on rye; R. Cochrane, of Grand Prairie, Alberta, won on timothy seed, and R. F. Almas, of Hagarsville, Ont., won on alsike clover seed. Mr. Trelle also won on field peas and Geo. Avery was reserve champion on durum wheat.

Among U. S. winners was L. E. Peterson of Victor, Mont., who won on barley and oats; Spangler Bros. of Jefferson, Wis., who won on flint corn; C. S. Looney, of Winchester, Tenn., who won on soybeans; C. Edson Smith, of Corvallis, Mont., who won on hard red winter wheat; J. M. Graham, of Melba, Idaho, who won on red clover seed; J. C. Vincent, of Fargo, N. D., who won on sweet clover seed; Archibald Wilson, of Hysham, Mont., who won on alfalfa seed, and J. J. Shoultz, of Warsaw, N. D., who won on flaxseed.

The junior championship for an exhibit of 10 ears of corn was given to Anna Belle Holden, of Williamsport, Iowa, with Lloyd Joyce, of Logansport, Ind., reserve champion.

As an indication of the size of the grain show, prizes numbered as high as 48 were observed, and there were many that received no award.

One of the interesting features of the show, was an exhibit showing the ravages of the corn borer, and of the various farm implements that have been devised for the production and harvesting of corn in the pest infested area.

The American Linseed Co. has recovered heavy damages in the District Court of New York of the federal government for damage to linseed oil shipped from Rotterdam to New York in the government owned steamship Anaconda. Why should the Government engage in the shipping business?

Seed Movement in November

Receipts and shipments of seeds at the various markets during November, compared with November, 1929, in bus., except where otherwise noted, were:

FLAXSEED

	Receipts	1930	1929	Shipments
Chicago	186,000	52,000	.....	.....
Duluth	.....	640,037	.....	1,161,680
Ft. William	936,809	283,838	940,909	312,730
Milwaukee	21,450	12,870	.....	.....
Minneapolis	912,030	623,520	286,050	279,330
New York	341,000	.....	12,237	.....
Fort Worth	187	330	.....	33

KAFIR AND MILO

Hutchinson	318,500	228,800	.....	.....
Kansas City	.....	293,700	.....	230,000
St. Louis	.....	100,000	.....	57,600
Wichita	9,100	7,800	2,600	.....

CANE SEED

Ft. Worth	6,500	.....	.....	3,900
Hutchinson	6,500	.....	.....	.....
Kansas City	47,150	1,150	2,300	.....
Wichita	19,500	1,300	3,900	.....

SORGHUMS

Cincinnati	1,400	2,800	.....	.....
Ft. Worth	184,600	54,600	397,800	152,100
New Orleans	.....	5,600	.....	.....

CLOVER

Chicago, lbs.	1,782,000	2,121,000	507,000	972,000
Milwaukee, lbs.	13,625	147,280	268,920	163,855

TIMOTHY

Chicago, lbs.	1,701,000	1,915,000	1,316,000	730,000
Milwaukee, lbs.	90,000	122,400	99,740	33,180

Mahogany Corn

Some of the newspapers and some of the trade papers have recently given space to a story telling about a new corn that has been developed in Nebraska, and for which great claims for superiority are claimed.

The story is that this new strain is the result of a chance cross between Country Gentleman and the old time blue squaw corn. Some of the claims for superiority were that it was unusually drought resistant; that both grain and stalk were unusually sweet; that it was a heavy yielder, and that it would mature in 100 days.

The College of Agri. of the Univ. of Nebraska, says however, that it is questionable as to whether or not the publicity was justified, and the County Agent reported that the alleged new variety looked like ordinary blue flour corn.

Concerning this old blue flour corn, the college says:

"In our tests at the No. Platte Station it has yielded as well as any variety and has, in fact, during some years out-yielded ordinary dent corn. It is not grown for husking, however, because the shanks are very stiff and the corn is hard to break. It suckers a great deal and this also makes it rather mean to handle. It is, however, used extensively for hogging down and for fodder and for these purposes it is quite satisfactory.

"We do not believe you would want to grow any considerable acreage of either. This so-called Mahogany corn on the ordinary blue flour corn for cribbing, on account of the husking difficulty. For the production of corn to husk out and crib, we would suggest the growing of the ordinary dent varieties, taking particular care to pick out good ear types."

World Flaxseed Prospects

Despite a downward revision in the U. S. flaxseed crop of nearly 1,000,000 and a reduced estimate of the acreage seeded in Argentina, present indications are that the 1930-31 world crop will be 20 per cent larger than that of last season, according to the flax review issued by the U. S. D. A.

The second estimate of the area seeded to flaxseed in Argentina is 7,401,000 acres, compared with the first estimate of 7,537,000 acres, the department said, but even with this reduction the area sown is the largest recorded.

Linseed oil requirements may not be much different during the 1930-31 season from last season, but slightly more flaxseed may need be crushed due to low oil content of the new crop.

Trade Practice Rules, even though they may have met the approval of the Federal Trade Commission, cannot be used as a screen for activities that are in violation of the anti-trust laws.

Toledo Seed Prices

The following table shows the range of prices for seed on the Toledo market for cash and the futures for clover and alsike for week ending Dec. 6:

Clover:	High	Low	Close	Yr. ago
Prime clover, old.....	\$14.50	\$14.50	\$14.50	\$11.10
Prime clover, new.....	15.00	15.00	15.00	11.10
Prime choice cash, new	15.35	15.35	15.35	.....
Prime choice cash, old	14.80	14.80	14.80	.....
December	15.00	15.00	15.00	11.10
February	15.35	15.35	15.35	11.35
March	15.55	15.50	15.50	11.50

Alsike:	High	Low	Close	Yr. ago
Cash	13.75	13.75	13.75	10.75
December	13.75	13.75	13.75	10.75
March	14.25	14.25	14.25	11.00

Good Seed Corn

F. W. Oldenberg, specialist in agronomy at the Univ. of Md., says that corn damaged by drought may not necessarily be damaged for seed purposes. He says that if the individual kernels are developed, and will germinate, they will produce just as good plants, whether there are 5 or 500 on the cob. "A four-inch nubbin with 100 well developed kernels of a productive and adapted variety is likely to be better seed corn than a 10-inch ear from a point 100 miles north, or 100 miles south."

Still More About Herbae-Mira

Under date of Dec. 5, the Peoria, Ill., Better Business Bureau advises that Dr. A. W. Miller of Herbae-Mira fame, appeared in court Dec. 1 and pleaded guilty of operating a confidence game and of obtaining money under false pretenses. He immediately applied for probation and made restitution in the amount of \$310.

The application for probation was referred to Maude L. Albrecht, probation officer, and as the law denies probation to old offenders, and the probation officer has been supplied with many details of this man's history, it is intimated that a penitentiary sentence is in store for him. Apparently it hinges upon the question as to whether or not he must have been an old violator of the Illinois laws. This crook was exposed in Grain and Feed Journals of Nov. 26, page 705.

Premier Brackin of Manitoba says that unless wheat prices improve, losses to the western government in the Canadian wheat pool guarantee may exceed \$10,000,000. The governments of Manitoba, Saskatchewan and Alberta guaranteed bank payments to the pool in financing the 1929 crop.

Courteen Seed Co.
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Specialize in

ALL CLOVERS TIMOTHY and ALFALFA

Your Offers and Inquiries Solicited

Supreme Court Decisions

Digests of recent decisions by State and Federal Courts Involving rules, methods and practices of the wholesale grain, field seeds and feedstuffs trades.

Misdelivery of Shipment.—Evidence showed that railway, paying consignor's judgment for misdelivering property, was not thereby subrogated to consignor's rights against person who wrongfully obtained property.—*Southern Ry. Co. v. Swift & Co.* Supreme Court of South Carolina. 155 S. E. 429.

Accrual of Demurrage at Outlying Yard.—Arrival of cars at South Branch, a holding yard, within twelve miles of Sewalls Point, Va., until ready for unloading, held arrival at destination for demurrage purposes.—*Raleigh Smokeless Fuel Co. v. Virginian Ry. Co.* U. S. Circuit Court of Appeals. 43 Fed. (2d) 555.

Car Dumper Patent Not Infringed.—Patent No. 1,268,580 covering device for unloading grain from railroad cars, claims 1-4, 16, and 17, held not anticipated nor invalid as mere aggregation, and not infringed. An excerpt of this decision prior to the official citation just published appeared in the Grain and Feed Journals for Sept. 24, page 401.—*U. S. Circuit Court of Appeals.* 43 Fed. (2d) 473.

"Delivery."—Consignee's acceptance of draft, indorsed ocean B/L, consular invoice, and certificates of insurance under agreement to discharge cargo held to constitute "delivery" of cargo within contract requiring consignee to furnish wharf and cars.—*Kroller v. Delaware River Steel Co.* U. S. Circuit Court of Appeals. 43 Fed. (2d) 476.

Pooling Contract Not Enforceable.—Contract for delivery of milk signed by defendant before organization of co-operative marketing association held not enforceable against him, where he never thereafter became member of organization (Laws 1923, c. 181, § 13). Co-operative marketing association could make contract for delivery of milk only with its members (Laws 1923, c. 181, § 13).—*Tulsa Milk Producers Co-operative Ass'n v. Hart.* Supreme Court of Oklahoma. 292 Pac. 558.

Clean B/L Good Against Shipowner.—Shipowner, giving clean B/L for cargo known to be in poor condition, held estopped to assert, as against buyer-consignees accepting draft, that damage occurred before goods were delivered into its custody. If a clean B/L is given for cargo known to be in poor condition, whether it is negotiable or not is immaterial as regards shipowner's liability.—*The Carso.* U. S. District Court, New York. 43 Fed. (2d) 736.

State Inspector's Analysis Not Conclusive.—Statute making official analysis of fertilizers conclusive evidence is unauthorized invasion of courts and void as violating due process (Civ. Code 1910, § 1790). Civ. Code 1910, § 1790, provided that if analysis showed fertilizer sold comes up to guaranteed analysis, statement so sent by state chemist shall be conclusive evidence against plea of partial or total failure of consideration, and that statement of state chemist transmitted to ordinary shall be conclusive evidence of facts, whether evidence of indebtedness is held by innocent third party or not.—*Southern Cotton Oil Co. v. Raines.* Supreme Court of Georgia. 155 S. E. 484.

Delivery in Blanket Rate Territory

M. H. Dopplmaier, Portland, Ore., plaintiff, v. Crowell Elevator Co., Omaha, Neb., defendant, before Arbitration Appeals Com'ite of the Grain and Feed Dealers National Ass'n, composed of Jno. S. Green, Geo. E. Booth, C. D. Sturtevant, W. W. Manning and Mark Steele.

Appeal from award of Arbitration Com'ite No. 6, in which an award of \$135.72 was made in favor of the plaintiff, the Crowell Elevator Co. appealing.

This dispute comes out of a contract dated Oct. 11, 1927, under which the defendant, Crowell Elevator Co., sold to the plaintiff, M. H. Dopplmaier, eight 60,000-pound cars No. 2 yellow corn at \$40.90 a ton "basis north coast 59-cent rate points."

In due course of time the eight cars were loaded out of the elevator at Omaha and billed to Portland, Ore., on transit tonnage and routed via U. P. railroad. On six of the cars tonnage was applied originating in whole or in part on the C. M. & St. P. railroad, and on the other two cars various lines tonnage was applied. The plaintiff diverted three of the cars moving in whole or in part on C. M. & St. P. tonnage to points beyond Portland to which thru rates did not apply, and these three cars were later assessed with undercharges amounting to \$135.72. This undercharge is the basis for this claim.

The evidence submitted develops the following facts as we see them:

"Basis North Coast 59 cent rate points" is a common specification in trades of this character between these two markets.

There is no billing that will apply via intermediate line to ALL "North Coast 59 cent rate points."

Billing originating on the C. M. & St. P. is especially restricted in its application, and works to very few points in the territory specified via the U. P. railroad.

All Bs/L on this contract carried notations showing points and lines of origin of the tonnage applied.

Both parties to the case should have been familiar with the character of the billing this kind of a contract should anticipate.

It is, therefore, our finding that the C. M. & St. P. billing was so restricted in its application to "North Coast 59 cent rate points" that it was not a proper tender under the customs in vogue between the two markets, and the buyer would have been justified in rejecting such shipments.

We also find that the plaintiff had no right to divert these cars without checking the thru rate to contemplated destinations in accordance with billing as per notations on the respective Bs/L. When he diverted them beyond without notification to the shipper that the cars were inapplicable he became partly responsible at least for the additional charges incurred.

We, therefore, feel that both parties were equally negligent in handling these shipments, and while we do not generally endorse a split award we believe that in this particular case it is entirely equitable, and we hereby order that the additional freight of \$135.72 and the arbitration and appeal costs be divided equally between the plaintiff and the defendant herein.

Business conditions and collections are improving in Missouri and many sections of the Southwest.

Grain Claims Bureau, Inc., Box 687, Station A, Champaign, Ill.

Freight claim audits of your account sales returns three times per year will save you several dollars in a year's shipping. Audits on a percentage basis only, no other costs. A trial is solicited.

W. S. BRAUDT,
AUDITOR AND TREASURER.

Screenings in Canada

The Seed Branch of the Dominion Department of Agriculture report that all classes of screenings from this year's crop are practically identical in quality with the same classes a year ago. Domestic demand has been quiet with shipments considerably lighter than last year.

The light corn crop in the United States, due to the prolonged drought, stimulated the early export to that country of oat scalings, and later of standard recleaned screenings and other classes of grain screenings.

Since these products of the 1930 crop were first offered, the term "oat scalings" has been replaced with the term "mixed feed oats" and the name "standard recleaned screenings" has been replaced with the term "No. 1 feed screenings."

No. 1 feed screenings, suitably ground, compare favorably with good grain meals in mixed feeds. The value of mixed feed oats may be judged from their composition, namely, from 75% to 85% wild oats with varying small proportions of oats, barley, rye and wheat. This year's production weighs from 34 to 35 lbs. per bushel.

The elevator congestion of last year has been repeated, and No. 1 feed screenings, priced at Fort William at \$8.00 and \$9.00 per ton, have been shipped in large quantities to Buffalo where, at \$13.00 to \$15.00 per ton, they are profitable substitute for corn at 85 cents per bushel or about \$30.00 per ton.

Mixed feed oats f. o. b. Fort William, have been as low priced as 10 cents per bushel. Storage and other handling and carrying charges would, therefore, soon exceed their present value and considerable quantities will possibly be destroyed in order to make room in the elevators for wheat and other more valuable grains.—*Grain Trade News* (Winnipeg, Can.).

So far, the farm board has failed in every attempt to benefit the producer of farm products. It can claim credit only for being the most liberal spender of the people's money. The entire membership of the farm board, including Sec'y Hyde, is continually running over the country trying to induce the farmers to surrender their individual opinions and allow others to dictate how they run their farms, and in the face of this Mr. Legge, chairman of the farm board, admits in a letter that the farmer himself is the best judge of how his products should be marketed.—W. A. Moody, pres. St. Louis Live Stock Exchange.

Device for Scouring Rice

A rice-scouring device that mechanically removes bran from small samples of brown rice and that may be used also to remove the hulls and bran from rough rice of good milling quality, has been developed by R. M. Gehl, grain marketing specialist of the Bureau of Agricultural Economics, U. S. Dept. of Agriculture.

Scouring brown or rough rice reveals the color and the general appearance of the kernels, discloses the freedom from damage or the extent and nature of the damaged condition of individual kernels, and makes possible more accurate inspection, since the product becomes comparable in appearance to commercially milled rice.

Construction specifications of the rice-scouring apparatus may be obtained by writing to the Office of Information, U. S. Department of Agriculture.

The Indianapolis station broadcasting grain markets is WKBF, operating on a frequency of 1,400 kilocycles.

Feedstuffs

Feed Trade Notes

Scotts, Mich.—White Brothers report a heavier shipment of hay and straw and alfalfa and Michigan winter wheat feeds into the drouth area territory over the last 60 days, than over any equal period in the history of their organization.

Jackson, Miss.—The Federal Trade Commission will begin hearings in this city on Dec. 11, in the matter of alleged law violations in the purchase of cottonseed. Hearings at Columbia, S. C., were concluded ten days ago.

Montreal, Que.—Speedy increase in pork production in Canada, with a consequent necessity for Canadian farmers to seek new export markets, is expected to result from the low price of grain in Canada and the large amount held by government wheat pools.

Wheat bran amounting to 47,256 long tons from 8 foreign countries entered the United States during October. This compares with 34,771 long tons in September and 30,000 in August, making a total of 112,027 long tons imported in 3 months.

In experiments with hogs, the Indiana Ag. Exp. Sta., found that as a supplement to corn and soybeans, kelp was somewhat more efficient than a simple mineral mixture. It also improved rations of corn and tankage or corn and fish meal.

State legislatures in several of the states, are to meet soon and there is already talk of changes in some of the seed and feed laws. Watching for these new bills and heading off freak proposals should be a part of the self constituted task of each one that is interested.

One factor which favors egg production for the coming months is that feed prices are low. This is important, since feed constitutes more than 50 per cent of the expense of producing eggs. Hens should be well fed this winter, as only well-fed hens can be expected to lay heavily.

Feed control officials will be changed in several of the states within the next two or three months, due to the political upheaval at the November election. Where competent men are put out and politicians, with political pull as their chief qualifications, are put in, it will be altogether too bad.

The average milk production for New York state cows in 1929, was 5534 pounds, containing 201 pounds of fat, and the return was \$69 above feed costs. By way of contrast, the average production of honor roll cows was 9357 pounds of milk containing 337 pounds of fat, and the average return above feed costs was \$152. It pays to have good cows and then to properly feed them.

St. Louis Feed Prices

The following table shows the closing bid price each week on the St. Louis market per ton of standard bran, gray shorts and standard middlings for the March delivery:

	Nov. 8	Nov. 15	Nov. 22	Nov. 29	Dec. 6
Bran	\$20.35	\$19.75	\$21.25	\$20.50	\$19.75
Shorts	21.35	21.10	22.80	22.75	22.00
Midds.	20.75	20.00	21.75	22.00	20.50

The Kansas State Ag. College reports that corn marketed through cattle increased in value by an average of 45 per cent, on the basis of corn and cattle prices prevailing over the past six years.

Foggy weather was held responsible for the theft of more than a ton of chicken feed from the Farmers' Elevator at Richmond, Mich., recently. It pays to keep elevators and warehouses that are not under close surveillance securely locked, these days. Trucks that can travel 40 miles an hour make a speedy get-away an easy matter.

Washington.—Per capita consumption of all dairy products except butter is now at the highest point in the nation's history, says the bureau of agricultural economics, U. S. D. A. There has been a marked upward trend especially in the last ten years. Per capita consumption of butter last year is computed at 17.61 pounds, compared with 14.7 pounds 10 years ago.

A survey of feed sales in Ohio shows that in 1929 approximately 24 per cent of all feed sold was poultry feed, 18 per cent of the total was dairy feed, 3 per cent hog feed, and 7 per cent miscellaneous mixed feeds. This shows that mixed feeds comprised 52 per cent of all feeds sold in that State for the year. Poultry feeds show the most rapid progress having made an increase from 21 per cent of the total to 24 per cent in one year—1929.

Nevada, Ia.—An experimental station for research work in the milling of balanced feed rations for poultry and livestock is to be located on a ten-acre tract of land, on the north side of Lincoln Way, just west of the city limits, by a group of feed men known as the National Research Bureau. Eight of the larger manufacturers of mill feeds have joined together in the project and have secured Dr. William Lapp, a chemist of Chicago, to direct the research work.

Knowing Feeds and Feeding Pays

Knowing feeds means much more than that they contain some cottonseed meal, some meat scraps, some powdered milk, etc. It also means more than that a certain mixture carries a certain percentage of protein, fat, fibre, and carbohydrates.

Selling any of the standard brands of ready mixed feeds, or even selling your own brand, simply on one or the other of these bases, isn't selling real service, and that, after all, is what largely influences permanence and profit.

Selling feeds and service means a knowledge of what kind of stock is to be fed and what for. It means knowing about the kinds of roughage and supplemental feeds that are to be used, and it means knowing that the feeder knows what he is about, or that he will follow directions.

The only way to expand the use of properly blended feeds is to know the feed business from A to Z, and then to pass the necessary information unobtrusively on to feeders who do not know, but are willing to give the plan a trial. Knowing the how and the why, pays both dealer and feeder.

An increase of 12½ cents, from 25 to 37½, was advocated by Alexander Legge Nov. 20 in the duty on corn.

Organize to Fight Portable Feed Mills

Millers of northeastern Iowa met at New Hampton recently and formed an organization for their mutual protection against the inroads of the portable feed grinder. E. C. Heinmiller sent out the initial call to 30 millers and all of them responded; a constitution and bylaws were adopted and the following officers were elected:

Pres., E. C. Heinmiller, New Hampton; V. P., G. L. Peterson of Postville; Ed Haus of North Washington, Sec.-Treas. The board of directors chosen were Paul Topel of Postville, Gale Melenger, Nashua, J. W. Conry, New Hampton; Joe Coupel, Cresco, and R. A. Sprague, Oelwein.

Plans were made for petitioning the legislature for the passage of a law which would protect local grinders against the nomads who pay neither license fees nor taxes.

Finds New Calf Feed

Calves have been grown to six months of age at a total cost of \$36 dollars by feeding a new "calf starter" devised at the New York state college of agriculture. The new feed is a dry mixture, and but 325 pounds of whole milk was used during the first seventeen weeks, according to Charles H. Crawford of the department of animal husbandry.

The mixture contains: 320 pounds of ground yellow corn, 320 pounds of rolled oats, 320 pounds of winter wheat bran, 160 pounds of linseed meal, and 880 pounds of dry skim milk. The calves were fed the calf starter for the first sixteen weeks when they were changed to a cheaper, concentrated mixture called the heifer ration. The heifer ration has 300 pounds each of ground yellow corn, ground oats, and wheat bran, and 100 pounds of linseed oil meal.

Both of these feeds gave good growth and are cheap, Mr. Crawford says. The calf starter was limited to five pounds and the heifer ration to four pounds daily. Hay was fed liberally.

New Feed Trade Marks

Schultz, Baujan & Co., Beardstown, Ill., filed ser. No. 300,444, the word "Critic," for livestock and poultry feeds, wheat middlings, wheat bran, and wheat shorts.

No. Dakota Mill & Elev. Ass'n, Grand Forks, No. Dak., filed ser. No. 304,733, the words "Dakota Maid" with profile view of an Indian maiden, for pure spring wheat bran, standard middlings, flour middlings, and mixed feed.

Iowa Chemical Co., Cedar Rapids, Iowa, filed ser. No. 305,412, the word "Fermolac" for food preparation to be added to animal food for the purpose of aiding digestion.

Exports of Feeds

Exports of feeds of domestic origin during October, 1930, compared with October, 1929, and for the ten months ending with October, are reported in short tons by the Bureau of Foreign and Domestic Commerce as follows:

	October 1929	October 1930	Ten Mos. Ended October 1929	Ten Mos. Ended October 1930
Hay	1,225	281	10,173	5,098
Cottonseed cake	18,543	2,958	130,984	25,813
Linseed cake	25,974	5,888	301,205	148,467
Other oil cake	3,385	115	27,489	8,138
Cottonseed meal	14,914	1,328	48,858	16,005
Linseed meal	237	263	10,023	10,108
Other oil meal	278	93	3,068	2,059
Mixed dairy feeds	78	92	1,933	1,547
Mixed poultry feeds	502	450	4,329	5,445
Other mixed feeds	1,417	463	13,579	11,125
All other feeds	1,409	1,620	25,509	15,460

Schaal Grain Co. Has Well-Equipped Feed Mill at Woodward, Ia.

D. F. Schaal, owner and operator of the Schaal Grain Co. at Woodward, Ia., is an opportunist. Starting with an antiquated plant that had steadily lost business he has constantly made improvements until today he has one of the most successful feed mills in connection with his elevator in the state of Iowa.

Mr. Schaal purchased the elevator in 1918, and immediately remodeled it into an efficient grain handling plant. It is a 30,000 bu. house of cribbed construction, iron-clad, with a number of bins. The machinery includes a Weller Manlift, a 6-bu. Richardson Automatic scale, a Western Gyrating Cleaner, a corn sheller, an air lift in the driveway, and one leg with a 14-inch rubber belt, fitted with 13x7 inch cups set on 14-inch centers. The pit is divided in two for handling small grain and ear corn. In one division is an ear corn drag leading to the sheller. A butterfly valve operates between the divisions.

Adjacent the elevator on the south side of the driveway is a large crib for storing ear corn or oats.

Power is supplied by motors, most of them fitted with belts to drive individual pieces of machinery.

This is the equipment with which Mr. Schaal started. He had not been in business long before he discovered a demand for feed grinding. Instead of waiting for someone else to install a grinder and then wishing he had done it, he immediately put in a Jay Bee Hammer mill to serve the community. This was in 1922. The business grew and soon Mr. Schaal had to replace the small grinder with a Jay Bee No. 3, run with a 40-hp. motor.

A local man shipped in 22 carloads of molasses feeds during the winter of 1926 and found ready sale for them. Wide publicity to the feeding advantages of molasses had created a strong demand. Mr. Schaal considered this for some time, seeking to find a way for manufacturing molasses feeds locally or of preparing molasses feeds from the farmers' own grain. He got in touch with an inventor and worked out a principle for mixing cold molasses with ground ingredients. The third machine built proved a success.

The grinder and molasses mixing equipment are in a room adjoining the elevator on the east. Outside the elevator near the track is a 12,000-gal. molasses tank. Molasses is shipped in tank cars, and pumped from the car to this tank. A heavy Viking Pump, designed for this purpose is run by a 15-hp. motor. This pump also transfers the molasses from the storage tank to the small tank in which it is weighed for mixing, and from this into the cold-process molasses mixer.

The grinder in this room is now used only for the molasses mixing business. Grain is spouted to the grinder from a bin in the elevator. This spout is fitted with a shut-off device and a narrowing passage at one point so as to choke down the steam, syphon it over a slight lift then lead on to the grinder. This levels the flow of grain into the grinder, which prevents overloads and enables uniform operation.

The mill is fitted with electromagnets to prevent passage of tramp iron to the hammers. All grain going into the mill is first run over the cleaner in the cupola, which removes the screenings. The screenings are later ground and mixed with molasses into a feed which retails at a good price compared

with the original value of the ingredients which go into its manufacture. Waste is eliminated wherever possible.

This was the plant Schaal Grain Co. was operating at the close of 1926, doing a good grain business and an extensive local grinding and mixing business, including the preparation of molasses mixtures.

Demands still continued to develop. More and more feeding was being done and the farmers demanded prepared formulas and grinding and mixing according to their own formulas. Mr. Schaal responded with construction of a special feed grinding unit adjoining the elevator on the west.

This was fitted with a drive-way and log dumps. The pit was designed to hold slightly more than a truck-load of grain and was fitted with steel lining and a chain drag to the new grinder.

Grinding is done by a large size hammer mill direct-connected with a 75-hp. motor. The grinder is fitted with a magnetic separator for removal of tramp iron. From the collector of this grinder spouts lead to a number of bins. Six of these bins are over the drive-way so as to spout ground products directly back into the farmers wagon or truck. Feed may be spouted from these bins to the packing department inside the building.

Grain may be brought into this building by a long spout from the head in the elevator. When this is done it is re-elevated by a small leg in the mill building carrying V buckets on 8-inch centers, to a grinding bin in the top part of the building. From here it may be spouted to any of several machines on the second floor or to the grinder in the basement.

On the second floor is an oat huller, a corn cracker, a screen grader, and a rebuilt 3-pair roll for making rolled oats and for coarse cracking of corn. Separate motors are used to operate each of these machines except the first corn cracker, which is a small machine used on fine work exclusively. This is run from a line shaft.

On the first floor is a 500-lb. batch mixer run by a 3-hp. motor. A small meal leg with K. T. Willis fast discharging cups elevates meal to this mixer. Dumping ingredi-

ents into the boot of the leg for sacking the mixed formula is one of the few hand operations which must be performed in the plant. This is necessary because the ingredients must be weighed in the proper proportions before being mixed.

Between the 1st and 2nd floors of the building a Western Manlift saves time. A sack lifter has been devised of chains and arms, run by the mixer motor, to facilitate movement of sacked products from the mixer to the second floor for storage. This device consists simply of two heavy link chains, running vertically parallel to each other, close together, with corresponding arms at proper intervals, which hold the sacks as the chains move upward.

The sack room is on the second floor, where Mr. Schaal keeps his printed and unprinted sacks. The company prepares two formulas for laying mashes, a starting and a growing chick mash, and a supplemental hog feed, selling these under his own brand name.

Mr. Schaal has two farms within three miles of town. At these he does a lot of feeding, and tests his own formulas. A file of formulas from various sources is kept for the information of patrons. If a farmer is undecided about what he wants in a feed he is free to inspect these and make a choice. In addition mixing of private formulas is done.

For the mixing end of the business and his retail trade, Mr. Schaal keeps a variety of ingredients always on hand. The supply includes tankage, meat scrap, salt, bone meal, calcium carbonate, oyster shell, bran, shorts, molasses, mineral preparations, and others.

The company keeps no trucks. Farmers haul their own grain and come after their feeds. The plant is well equipped to deliver products expeditiously.

The plant serves a farming and feeding territory covering a radius of 35 miles. Mr. Schaal advertises regularly in the local papers during the feeding season. An important factor in his success is the quality of his work and the results his formulas produce. Actively associated with him in the enterprise and meriting a lot of the credit for the success of the institution is his son, who is a student of feeds and feeding as well as the grain business.

The company is planning future improvements with installation of a truck lift in the feed mill driveway, and a drag feeder for handling oat hulls to the grinder.



Schaal Grain Co.'s Elevator and Feed Mill at Woodward, Ia.

Wheat For Hogs

With wheat at abnormally low prices last summer, C. M. Vestal, of Purdue Ag. Exp. Station started three lots of 60 hogs each on feeding trials to determine the value of wheat as compared with corn for fattening hogs. All feeds were self-fed, free choice, and the hogs had access to alfalfa pasture. The wheat was coarsely ground and corn was shelled.

One lot of hogs was fed wheat and tankage; another corn and tankage; and the third had corn, wheat, and tankage. The average weight of all the hogs was 108 pounds at the start of the feeding trials, and at the end of 62 days all weighed 220 pounds or more.

The lot fed corn, wheat and tankage made the most rapid and greatest gains, for a final average weight of 224 pounds, or 1.88 pounds a day. The wheat and tankage lot came in next, averaging 221 pounds, with a gain of 1.82 pounds a day, or one-tenth pound a day more than the corn-and-tankage-fed hogs. With shelled corn figured at 81 cents a bushel; ground wheat 79 cents a bushel; tankage \$65 a ton; and alfalfa pasture 10 cents per month per head, the hogs fed wheat and corn made the cheapest as well as the most rapid gains, \$5.87 for 100 pounds of gain; the others were \$6.22 per 100 pounds, for wheat; and \$6.25 per 100 pounds for corn. Wheat alone was worth 80 cents a bushel, and fed with corn was worth 83 cents.

When wheat and corn both were available, the hogs ate about three and one-half times as much wheat as corn, making the total feed consumption about the same as when corn alone was fed. The wheat-fed hogs ate the most feed.

Important to Feeders

Seven bushels of corn plus 50 pounds of protein supplement, such as tankage or its equivalent, will do the work of 11 or 12 bushels of corn fed alone in producing pork. This is the story being told to Iowa farmers by extension specialists in animal husbandry at Iowa State College when asked how to save corn.

High protein feed should be self-fed only when corn is self-fed. When corn is hand-fed, the protein mixture should be hand-fed at the rate of 1 pound to each 9 or 10 pounds of grain.

Altho tankage alone is a good protein feed, tankage mixed with some other protein feed is better. A good home made protein mixture for fall and winter feeding is the "trinity" mixture, made up of 2 parts by weight of tankage, 1 of linseed oilmeal and 1 of alfalfa meal. A mixture containing less than 40 per cent protein is not considered the most economical because the protein it contains usually costs more than it would cost in corn.

Feed Movement in November

Receipts and shipments of feeds and feeding stuffs at the various markets during November, compared with November, 1929, in bushels, were:

	Receipts		Shipments	
	1930	1929	1930	1929
Baltimore	1,704	1,162	.....	.....
Chicago	23,077	18,002	46,136	52,925
Cincinnati	120	120	.....	.....
*Kansas City	3,980	6,420	18,800	18,040
Milwaukee	60	7,320	7,210	11,810
Minneapolis	4,749	4,884	54,227	56,673
New York	120	.....	.....	.....
San Francisco	540	.....	.....	.....

†Millfeed. *Bran and Shorts.

Fight Proposed Lower Feed Standards

Eugene, Oreg.—At a called meeting of the Eugene District, Oregon Feed Dealers Ass'n, the group gave a unanimous vote expressing decided disapproval of any move to relax the present high standards required by the present Oregon law regarding allowable percentage of fiber in feeds.

In this stand the feed men, whose action follows similar expression of opinion in other districts in the state, are solidly back of the stand of the Oregon State College authorities who oppose any move which might conceivably result in lower standards of feed for use by dairy and poultry farmers, it was announced.

Pres. Bushman reported in detail the meeting held at Oregon State College by the committee appointed by the Feed association to confer with state college officials to work out a close cooperation between the feed industry and the dairy, poultry, and animal husbandry departments of the college. A program is being prepared which is expected to coordinate the influence and resources of all these groups for the betterment of the poultry and dairy industries of the state.

Still Buying Argentine Feed

On June 6, Floyd Oles, manager of the Feed Dealers' Ass'n of Washington, wrote the Farm Board, calling attention to the fact that the Washington Co-operative Egg & Poultry Ass'n was purchasing Argentine bran, and registered a mild protest. Mr. Oles reports that Sec'y Christensen, of the Farm Board, acknowledged receipt of that letter and advised that the matter would be called to the attention of the Board.

As no further word was sent to Mr. Oles and as purchases not only of Argentine bran, but also of Argentine corn continued to be made, a letter dated Nov. 8 was sent to Chairman Legge, one paragraph of which reads as follows:

My letter of June 6 called attention to the support given co-operative societies by propaganda emanating from your Board, which propaganda is evidently designed to produce, and does produce, the impression that it is the patriotic duty of an American farmer to join and patronize co-operative societies. That letter further pointed out that this amounts in a case such as the present, to making it a patriotic duty of a farmer to purchase foreign goods imported in competition with American products.

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Manufacturers of a complete line of feeds for poultry, swine, dairy cattle, beef cattle, horses, mules, sheep, rabbits, dogs, fur-bearing animals, etc. Poultry feeds always sacked in NUTRENA Golden Bags.
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Poultry Feeds and Feeding

The Chicago Poultry Show

Chickens as large as turkeys and as small as pigeons; rabbits as large as young lambs; blue, black and silver foxes; ducks; geese; mink; pheasants and turkeys of all sizes and colors, combined to make of the poultry exposition, held in the Chicago Coliseum, Dec. 3-7, perhaps the biggest show of its kind ever held in this country. All told, there were more than 4,000 entries and nearly every state in the Union, as well as some foreign countries, were represented.

Furthermore, there were numerous exhibits of feeds and supplies the U. S. D. A. had an educational display; and the Univ. of Illinois had a booth. In fact, nothing was omitted in the way of education and entertainment, whether the visitor was a novice or a professional.

Inquiry among the poultry exhibitors concerning feeding methods brought the information that some of them were mixing their own feeds, consisting largely of cracked corn, wheat, hulled oats, meat scrap, linseed meal and some simple minerals, but the majority of those having the prize winning birds were using some one of the nationally known brands of ready mixed rations.

One man, who said he had been using much wheat, before the weather became cold, said he had cut down on that grain and was now using much more yellow corn, and by way of explanation, he said: "It makes more body heat thus giving the combs and wattles a deeper red color."

Among the feed and accessory exhibitors were: Albert Angell Jr. Co., Collis Products Co., Consolidated Products Co., Albert Dickinson Co., Gulf Crushing Co., S. Howes & Co., National Oil Products Co., Parke Davis & Co., Quaker Oats Co., Swift & Co., Washburn Crosby Co., and Wayne Feed Mills.

Poultry and Egg Prospects for 1931

In his annual report, the Secretary of Ag. thus comments on the poultry and egg conditions and prospects:

The number of laying hens in farm flocks on July 1 was about 1 per cent greater than on the same date in 1929. Since then, however, relatively low egg prices have caused a fairly heavy movement of fowls to market. It is therefore probable that farm flocks in 1931 will be smaller than they were in 1930. Moreover, the current low egg prices may cause poultrymen to feed their flocks less intensively. Indications are, in fact, that laying flocks will enter the spring of 1931 in a condition below normal. Hence the total egg lay during the flush production of 1931 is likely to be less than it was in 1930. Whether the prospective decline in production will be accompanied by a proportionate rise in prices depends, of course, on the consumer demand, which is primarily affected by the business situation.

The poultry market, as well as the egg market, was oversupplied in 1930. Heavy hatchings from the preceding year and a lessened consumption demand caused a marked accumulation of poultry in cold storage. Heavy hatchings this year aggravated the situation. The movement of both old and young stock to market was very free. From January to September, inclusive, the receipts of fresh-killed western poultry at principal western markets were 3 per cent more than the receipts in the corresponding months of 1929. These liberal receipts, added to the influence of storage stocks that were nearly at the record level, caused a slump in poultry prices. However, the lower prices stimulated poultry consumption. In the first nine months of 1930 the consumption was 15 per cent heavier than in the corresponding months of 1929. Hence the prospect for 1931 is not unfavorable. Producers should find the market more nearly normal, without burdensome storage accommodations and without excessive market receipts.

How and When to Feed Poultry

The Mo. State Poultry Exp. Sta., recommends the following feeding methods and formulas for profitable poultry production:

A dry mash should be kept before the birds in some convenient type of hopper at all times. The same mash may be moistened with just enough water or milk to make it crumbly and fed in an open trough—the amount the birds will clean up in thirty minutes. It is very important to have regular hours for feeding. The moist mash should be fed early in the morning. A light grain feed should also be fed in the morning, and all the grain the birds will clean up should be fed late in the afternoon. Birds should have time to eat all they want before going on the roost.

Grain: 50 lbs. cracked yellow corn, 50 lbs. wheat.

Mash: 25 lbs. bran, 25 lbs. shorts, 30 lbs. corn meal, 10 lbs. ground oats, 12 lbs. meat scraps, 5 lbs. alfalfa leaf meal, 4 lbs. mineral, 1½ lbs. fine salt.

In extremely cold weather use 75 lbs. cracked corn and 25 lbs. wheat for the grain ration, as the additional corn is beneficial in furnishing the needed body heat. The alfalfa leaf meal is not necessary in the mash when there is an abundance of green feed available.

Farm Board loans to dairymen at St. Louis, Mo., will be made by the Board only thru the Sanitary Milk Producers, Inc., to members of co-operatives, disregarding the distress of the 5,000 to 6,000 milk producers equally needy who are non-members.

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What Do You Need in Preparing Feeds?

Check below the items in which you are interested and mail to Information Bureau, Grain Dealers Journal, Chicago, and information on where to get what you want will be immediately sent you.

Attrition mills	Gluten, feed, meal
Alfalfa meal	Hammer mills
Blood, dried	Iodine
Bone meal	Iron oxide
Buttermilk, dried, semi-solid	Linseed meal, cake
Calcium, carbonate, phosphate	Meat meal, scrap
Cocoanut oil meal	Minerals
Cod liver oil	Mineral mixtures
Charcoal	Molasses
Commercial feeds	Oyster shell, crushed
Cottonseed meal, cake	Peanut meal
Feed mixers	Phosphates, rock
Feed concentrates	Potassium, chlorid
Feeders for mills	Iodide
Fish meal	Salt
Formulas	Screenings
	Skim milk, dried
	Soybean, meal
	Tankage
	Yeast for feeding

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Excellent Service

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Meat Scrap—50% Protein

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May Feed 236,000,000 Bushels of Wheat

As the result of a survey just completed by the Buro of Ag. Economics, the U. S. D. A., announced Dec. 8, that 236,000,000 bu. of wheat will be fed to animals during this crop year.

This is the first survey to include wheat fed by non-growers and used in the preparation and manufacture of feeds, in addition to that fed on farms where grown. It is based on answers obtained from 190,000 questionnaires sent to farmers and 63,000 sent to mills and elevators, commercial poultry men and other users of wheat.

Wheat growers intend to feed 182,400,000 bus., compared with 57,800,000 bus. last year. Other farmers, manufacturers of feed and commercial poultry men, who used a total of 32,100,000 bus. last year, have used and expect to use a total of 53,600,000 bus. this crop year.

Reports from wheat growers, indicate that they had fed 60,700,000 bushels up to November 15 and that they intend to feed an additional 121,700,000 bushels.

The supply of wheat for the 1930-31 season is estimated to be 1,115,000,000 bus. Allowing for the indicated amount to be fed to live stock, for seed requirements, for 500,000,000 bus. to be manufactured into flour for domestic use and for the 70,000,000 bus. already exported, a balance of 230,000,000 bus. would be available for export during the remainder of this season and for carryover into the next. A similar computation as of Dec. 1, 1929, would have indicated a surplus remaining for export and carryover amounting to 338,000,000 bus. or 35,000,000 more than the indications. This discrepancy may be due to duplication or errors in the various items of supply and distribution.

In the last season (1929-30) the net exports of wheat and flour amounted to 140,000,000 bus., of which 76,000,000 was exported by Dec. 1 and 64,000,000 bus. in the remainder of the season. The net exports from July to Dec. 1, 1930, amounted to 70,000,000 bus.

African Corn for Canadian Poultry

New Westminster, B. C.—For the first time, perhaps, in history, and certainly for the first time in the shipping annals of New Westminster, a cargo of South African corn will be brought to the Pacific Coast. Two thousand tons of this product will comprise the cargo, which is scheduled to arrive on December 15. It is to the order of the Brackman-Ker Milling Company. This concern has long been in the habit of importing Argentine corn, which is principally for poultry feed, and the South American product is reported to have been quite satisfactory. It is thought, however, that the South African corn will be even better, and particularly that it will contain less moisture, which is the principal reason for the innovation.

The coal business has been reduced one-half in territory west of Hutchinson by the introduction of natural gas to many Kansas towns.

In a questionnaire 90 per cent of the 586 members of the American Society of Agricultural Engineers declared that they had no confidence in benefits to agriculture thru legislation.

"Maintenance of crop production" is declared by the Buro of Plant Industry in its annual report to call for extensive research on which the government expends \$5,000,000 annually. Legge ought to put a stop to this subversion of his efforts to cut down production.

Cleaning wheat of dockage saved farmers of the spring wheat states \$500,000 the past season, according to the U. S. D. A., more than 1,000 threshing machines having been equipped with special grain cleaners. More than \$300,000 worth of screenings was removed from 10,000,000 bus. of wheat and rye.

Profits in Poultry

Starting with one thousand pullets on November 1, 1929, a good Nebraska poultryman could have realized a gross net of \$2,716.00 and a profit of \$1,237.00 in the past twelve months, J. H. Claybaugh, of the Neb. agricultural college, figures. The \$1,237.00 would not have been net profit. Out of this amount, the poultryman would have had to pay interest and depreciation and take his own wages. Interest and depreciation would probably have amounted to about \$360.00, leaving between \$70 and \$75 per month for the poultryman's wages.

Poultry prices have been exceptionally low during the past twelve months, Mr. Claybaugh says, and the profits are not as attractive as they have been during the past few years. Outlook for the future is not so rosy either, Mr. Claybaugh believes. The supply of eggs in storage is still high, the supply of poultry in storage is a little below

normal, but demand for both eggs and poultry is poor.

Mr. Claybaugh arrived at the figures given by averaging the receipts of many commercial poultrymen, who cooperate with the agricultural college extension service in keeping cost accounts on their poultry. According to the summary, 81% of the total income came from the sale of eggs. Eggs sold on the market brought \$1,838.00 and those sold for hatching, \$473.00. Sale of young stock returned \$289.00, sale of old stock, \$199.00, and miscellaneous receipts amounted to \$15.50. Death loss in the one thousand hen flock during the year amounted to 12% or 119 hens. 521 hens were culled out and sold on the market. The flock averaged 147 eggs per hen in the year.

Alec Slater, president of the Liverpool Corn Trade Ass'n, says that at least 60 governments have attempted to fix wheat prices, and not one has ever made a success of it.

An easy, economical way to put (SALES PUNCH) into your Mashes

NOPCO XX is *sales punch* for your mashes, because more and more poultrymen are learning the value of feeding cod liver oil to breeding flocks as well as to chicks. They are demanding the Vitamin D protection which gives them firmer egg shells, more eggs, better hatchability, and stronger chicks. Furthermore, they want commercial mixtures which relieve them of the chore of mixing in the oil themselves.

Why Nopco XX, rather than any other cod liver oil? Because Nopco XX is fortified in Vitamin D by the Columbia University process to a strength where five pounds (1/8% total ration) will furnish adequate Vitamin D protection to a ton of mash, which is to be fed with a supplemental grain ration, with a margin for safety. You can easily see the saving in this cod liver oil which goes so much farther.

Nopco XX is tested for potency in Vitamins A and D and is fully guaranteed.

Five hundred commercial mixers already mix Nopco in their mashes, and find that the small amount needed can be mixed uniformly, with ease and economy. The pressure spray method pictured here is giving complete satisfaction to many mixers.

Any questions about mixing cod liver oil with mashes, or about Nopco, will be gladly answered. Write in today.



Picture by the courtesy of a customer that mixes Nopco XX in an average of 400 tons of mash per day. Absolutely uniform distribution is obtained with this pressure spray.

NOPCO

NATIONAL OIL PRODUCTS COMPANY, INC.
EXECUTIVE OFFICES & FACTORY: 35 ESSEX STREET, HARRISON, N. J.

Kansas City Mill Buys Schreiber Mill at Minneapolis

Expansion of the Nutrena Feed Mills, Inc., of Kansas City, has been announced by V. R. Miller, President of the Company thru the purchase by the Nutrena Company of the Schreiber Mill at Minneapolis and the entry of the Kansas City company into active competition for the commercial feed business of the Northwestern states. The Schreiber Milling & Grain Co. of Minneapolis is a separate corporation from the one at St. Joseph, Mo., altho Mr. A. B. Schreiber is president and principal owner of both companies. Sale of the Minneapolis

already has a wide distribution in Kansas, Missouri, Oklahoma, Iowa, Nebraska as well as South Dakota, and southern Minnesota. The Minneapolis mill will add a capacity of approximately 200 tons of commercial feeds a day to the Nutrena output and will open territory for them in Minnesota, North and South Dakotas, Wisconsin, northern Illinois, and Michigan.

The Nutrena Feed Mills was one of the first companies in America to put out poultry mash feeds in pellet form, and it has been actively engaged this season in establishing this new rationized egg producing feed which contains a completely balanced ration in every pellet. Poultry authorities, who have experimented with this new feed are said to hail it as a revolutionary change in feeding for high egg production. Chickens, by nature and by generations of habit, are accustomed to a hard granular diet and they find the granular pellets more palatable; consequently, they consume egg making materials in more accurate proportion than when fed egg mash and scratch grains.

In the last few years Kansas City has been expanding gradually into a position of prominence in the commercial feed industry. The introduction of the rationized egg pellet has been another step in that advancement. Since Nutrena's introduction in 1929 of this new form of pellet feed, a number of other feed manufacturers have added pellet machinery and are obtaining additional business with this new line, which is finding such favor with the poultry raisers.

In addition to poultry pellets, Nutrena manufactures cubes for feeding cattle and hogs, and also a full line of feed for dairy cattle, poultry, horses, rabbits, dogs, and all other classes of domesticated animals.

Washington.—Certificates of origin required on all imports into Belgium of grain, flour, glue, will not be required on shipments from the United States on straight bills of lading without transshipment.

Memphis Cottonseed and Meal

Memphis, Tenn., Dec. 6.—Although the volume of trading in Cottonseed Meal for the past week has been larger than for some time, price changes have been confined to a very narrow range, the market closing today practically unchanged for the week. With an unusually large open interest in the December position announced at the first of the month a somewhat higher market had been looked for in some directions which would possibly have materialized were it not for the fact that tenders already made, which so far total 1900 tons for the month, have been construed as more or less bearish and indicative of a very small demand for the cash. Outside influences have been such as to lend little encouragement to investment buying or of a constructive nature, and as a result, aside from continued short covering, trading has been influenced by the nature of the daily news and of a scapling nature together with the switching of the earlier months into the later deliveries at premiums that would argue for considerable confidence in later values. In the meanwhile stocks in first hands seem plentiful with reports continuing of a very indifferent and spotted consuming interest. The market is very sensitive and can be easily influenced by any revival in the cash situation.

The Cottonseed market has been quiet throughout the week with closing prices today averaging about 50 cents lower than a week ago. Trading has been curtailed greatly by the lack of any uniformity in prices for the cash article in the country, which according to rumors are in many instances in excess of those published in the daily press. What Cottonseed have been so far tendered during the current month are reported to have shown a very satisfactory outturn which has proven all the more surprising in the face of a general complaint as to quality which has resulted in heavy discounts. While complaint continues that present values are not justified in view of the current market for products it is hard to reason how any material decline can be expected so long as demand continues as is the case at present.



Nutrena's New Feed Mill at Minneapolis

mill in no way affects the St. Joseph mill or other Schreiber properties.

Mr. George S. Steward, for nineteen years in the feed trade of the Northwest, will have charge of the Minneapolis unit of the Nutrena Feed Mills. The acquisition of the Minneapolis mill places the Nutrena Company in a position to add a considerable sales area which they have been unable to serve in the past due to freight rates. Nutrena

Practical Poultry Farming

by L. M. Hurd

extension instructor in poultry husbandry, New York State College of Agriculture at Cornell University, is an up to date treatise on the raising of poultry. The poultryman who keeps hens as a main enterprise, the farmer whose flock is incidental to other farm operations, and the feed dealer who wants to talk knowingly about poultry raising will all find the book useful and profitable to read. Printed in large type, and with many illustrations, its 400 pages are full of practical information.

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332 So. La Salle St., Chicago, Ill.

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All grades and grinds

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ALL GRADES AND GRINDS
LEAF MEAL AND DUPLEX FINE GROUND FOR YOUR MASH FEEDS
Mixed Cans Our Specialty

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LAMAR, COLORADO


DARLING'S MEAT SCRAPS Are Better
Standard for 35 Years

Because we have constantly improved our methods of manufacture over a period of 35 years, our Meat Feeds have the confidence and are in constant demand by Poultrymen and Feed Mixers everywhere.

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Dept. No. M
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The Holly Alfalfa Products Co.

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Manufacturers of

ALFALFA MEAL

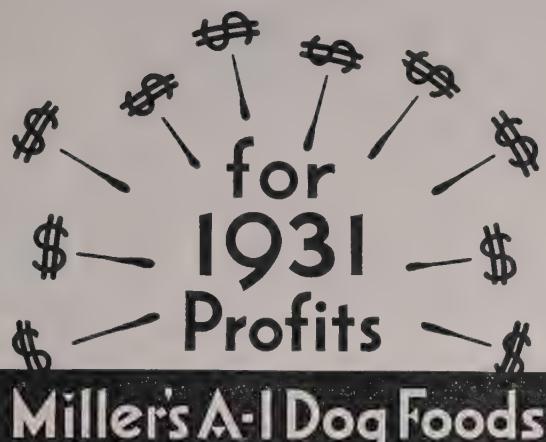
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Choice—Number One and
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Fine ground for Poultry Mashes
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THE DENVER ALFALFA MILLING & PRODUCTS CO., U. S. A.

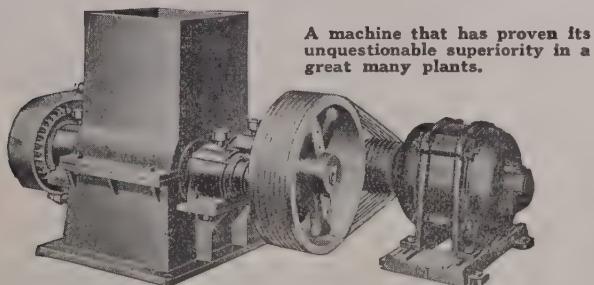
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HERE IS THE **UNIQUE**
SAW TOOTH CRUSHER



This is the one crusher that has the ability to crush ear corn with the husks adhering to the corn. It plows right through the ears, day in and day out, giving unusual capacity, and consuming a surprisingly small amount of power.

This crusher often takes the place of a sheller as it removes the kernels in the crushing process so that when the crushed corn is passed over a scalper, the husks and cobs are removed from the shelled corn.

Write for Bulletin No. 36, TODAY

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*That's the best proof of quality
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You gain the farmer's confidence at once when you show him that the mixed feeds you sell contain Linseed Meal.

It's the old reliable protein supplement that he has used for years. He naturally thinks of it when you mention balanced rations. And he expects to find it in the ready-mixed feeds you sell. Show him that it is listed on the label.

Write for the Linseed Meal Chart of Balanced Rations and tack it up in your store. You will find it valuable in giving farmers information on feeding problems. Or you can use it as a guide for batch-mixing. Write for a free copy of this up-to-date chart.

LINSEED MEAL EDUCATIONAL COMMITTEE
Dept. 812, Fine Arts Bldg., Milwaukee, Wis.



*The Universal
Protein Feed*

Handling Bagged Products Expediently at Small Cost

A new portable, flexible, power-driven elevating and tiering conveyor has just been introduced that has already found many useful applications in a wide range of industries.

The Clark TwinVeyor uses a new principle—two external spiral tubes are turned toward each other by a power head. Anything placed on the conveyor travels forward rapidly, perfectly balanced, self-centered.

The TwinVeyor has already made notable cost reduction records in handling raw materials and finished products in bags, bales and bundles. It will be found useful and economical in conveying, elevating and stacking bags of grain and feed, baled hay, etc.

The equipment has been used for some years in sugar refineries in California and Hawaii. There it has achieved remarkable cost reductions. It carries bagged sugar up a 30 per cent grade at the rate of 90 feet per minute, handling 1800 bags per hour.

A standard unit consists of six 8' dual sections and a power head. Each section is light, joins to the assembly with an automatic lock. It is easily shifted about by one man and the entire 50' line can be assembled or disassembled in six minutes. Flexibility is secured by the ability of any joint to take a 15 deg. angle horizontally or may be tilted 15 deg. up or 10 deg. down. In the elevating operation, sections may be supported by the material that has already been stacked.

Recent improvements include a hurdle section which permits any number of TwinVeyor 50' units to be hooked together forming a continuous line of any desired length. The traveling load hurdles each power head in the line. Right and left spiral chutes are provided for shunting the load from one



Elevating and Tiering Conveyor

"Feeds and Feeding"

ILLUSTRATED

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By W. A. Henry and F. B. Morrison

The recognized authority on feeds and feeding. Careful study of this book by elevator operators who grind and mix feeds will place them in better position to advise their farmer patrons as to the best in feeds. Keep it in your office within easy reach of your patrons and encourage their reading it.

Contains valuable formulae and suggestions on feed ingredients, proportions, etc.

Price \$4.50, f. o. b. Chicago.

Grain Dealers Journal
332 S. La Salle Street Chicago, Ill.

TwinVeyor line to another, thus making right angle turns simple.

An extension cord attached to the power head may be plugged into any power line. The flow of power along the entire TwinVeyor is smooth and constant. Two complete 50' TwinVeyors, disassembled in 15 minutes, can be loaded onto one factory trailer. Power head section weighs 365 lbs., each dual tube section 140 lbs., entire 50' assembly 1205 lbs.

This new car loading and unloading equipment is said to make remarkable reductions in the cost of loading freight cars with almost any type of bagged freight and comparable cost reductions in the unloading process.

The operation of the loading assembly is as follows: The standard TwinVeyor line extends to the car door. The addition of four short dual sections extends the line into the car, makes the right angle turn to the right, and, in operation, delivers the freight to the far end of the car, waist high. As the end of the car is filled, the end section of the TwinVeyor is removed. The line is successively shortened until one end of the car is completely loaded. Attachment of the four other sections of the car loading kit extends the line to the left hand end of the car and is similarly shortened as loading proceeds. With both ends loaded, the center section is loaded from the end of the TwinVeyor.

Molasses As a Feed

Cane molasses is prized as a feed chiefly on account of its high degree of palatability and its appeal to the "sweet tooth" which cows seem to have. According to A. E. Perkins, associate in dairying at the Ohio Experiment Station, palatability, however important, is not the only valuable feature of molasses; it also serves as a natural laxative and tonic which places it at once in the class of succulent feeds, along with corn silage and the root crops. Compared with corn, oats, or hay as a source of energy, molasses is at a disadvantage and is unduly expensive.

On account of its beneficial effect on the appetite and condition of the animal, however, its use may often be advisable when other forms of succulent feeds are not available. To this end it will probably be found cheaper and more effective than the various tonics which find rather extensive use to offset the effect of poor rations. From this standpoint its effect would be the same whether fed in connection with the hay or the grain. Large amounts of molasses are not needed to bring about these beneficial effects; an allowance of 2-3 pounds daily will usually be sufficient.

Grains are palatable in their natural condition, but much difficulty is often experienced in providing a roughage ration which is sufficiently palatable to be consumed in proper quantity. The addition of molasses would thus frequently be of considerable value in increasing roughage consumption.

Hay Movement During November

Receipts and shipments of hay at the various markets during November, as compared with November, 1929, in tons, were:

	Receipts		Shipments	
	1930	1929	1930	1929
Baltimore	374	48	...	833
Chicago	15,681	8,621	3,350	833
Cincinnati	6,424	5,896	...	...
Superior	814	271,603	882,017	608,924
Kansas City	20,160	15,480	10,296	4,716
Milwaukee	204	348	...	...
Minneapolis	1,554	1,029	156	61
New York	261	...	...	...
Peoria	260	...	...	...
San Francisco	337	228	...	...

Little importance will be ascribed to the fact that the Nat'l Ass'n of Commissioners, Secretaries and State Dept's of Ag., at a recent convention, adopted a resolution pledging cooperation with the Farm Board "in advancing the interests of agriculture." As job holders, the members doubtless thought it wise to make this pledge, even though, in carrying it into execution, state laws are broken.

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Unlimited supplies
Pure Dried Buttermilk
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Rapidly crush ear corn (with or without husk) and grind all the small grains; either separately or mixed—mixed as they are being ground—not before or after. This saves time and labor.

"COMBINATION" MILLS



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Free from shale, moisture, organic matter, adulterants. Best for Your Trade.

Will not cake or harden.

Costs no more.

Get samples for feed mixing. Splendid profits for Dealers.

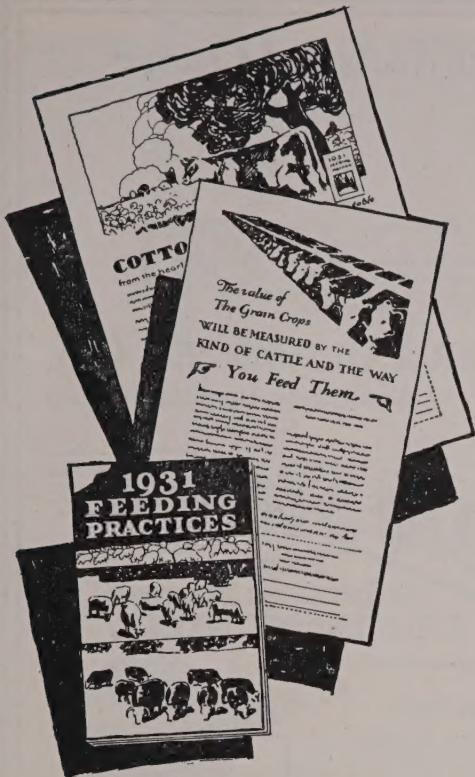
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Feeders have tested COTTONSEED MEAL in the feed lot, and have seen the results of using this concentrated protein. Increased production plus lower unit cost have convinced them that COTTONSEED MEAL and feeds containing COTTONSEED MEAL will bring profits to the feeder who uses them.

Manufacturers who use COTTONSEED MEAL in their feeds are catering to an ever-growing army of wide-awake feeders who know the results this quality protein gives.

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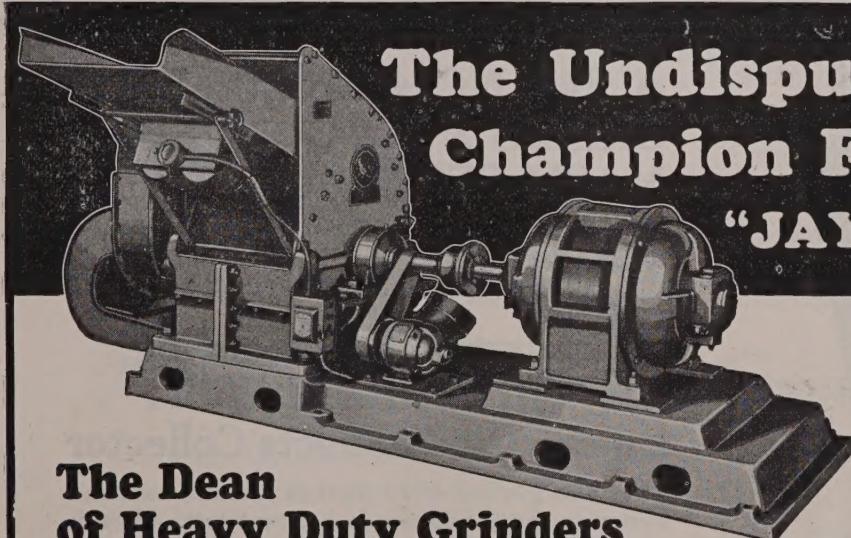
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No feed grinder made, using the same horse power, has ever equalled the "Jay Bee" Model W. We have guaranteed 10% greater capacity with the Model W than other makes of mills using the same H. P. On many occasions the Model W capacities have exceeded these other mills' capacities up to 60%.

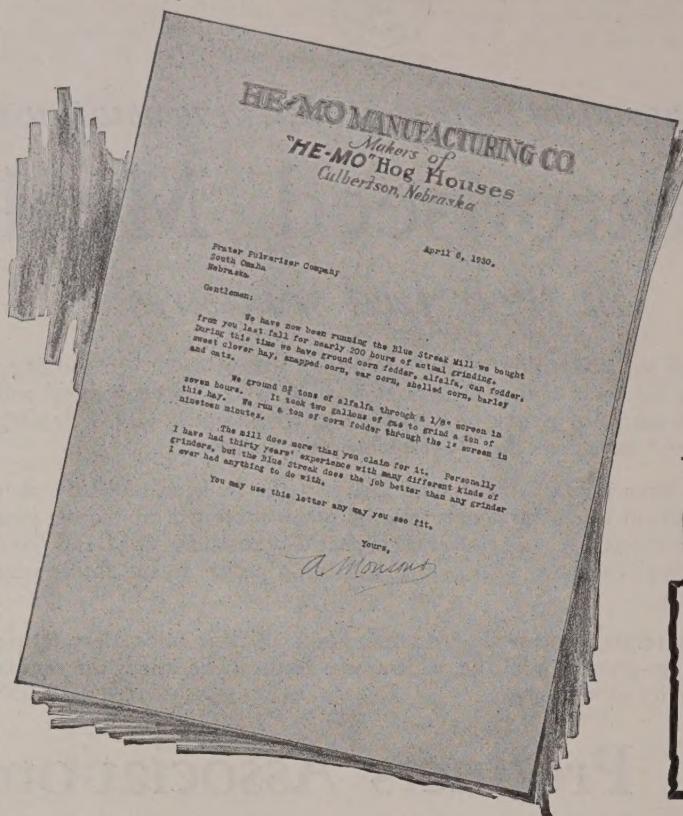
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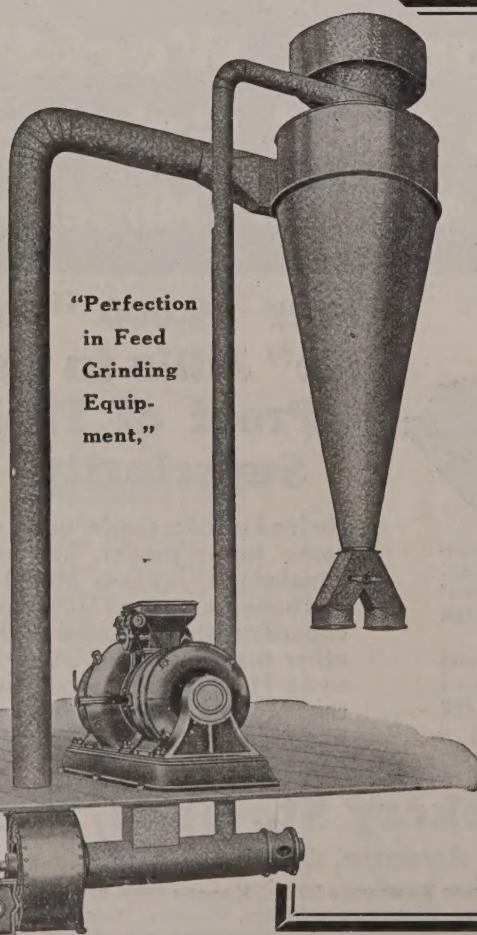
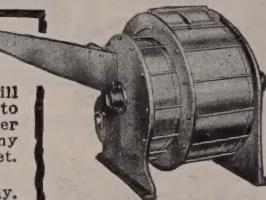
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The Blue Streak Hammer Mill is guaranteed unqualifiedly to grind feed better and at a lower cost per 100 pounds than any other mill now on the market. You are the judge.

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A 24-INCH MONARCH GRINDS 3 TONS OF EGG MASH PER HOUR

At a cost of only 60 cents per ton Bancroft Elevator Co. are grinding ton after ton of egg mash at the rate of three tons per hour on their

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They also ground 4570 pounds of corn, oats and barley in thirty minutes in a recent test. Here is what they say about their mill "it has helped us get new customers and satisfy our old ones." If you are having trouble meeting competition or want to reduce grinding costs get the details of this the Monarch Attrition Mill with air collector.

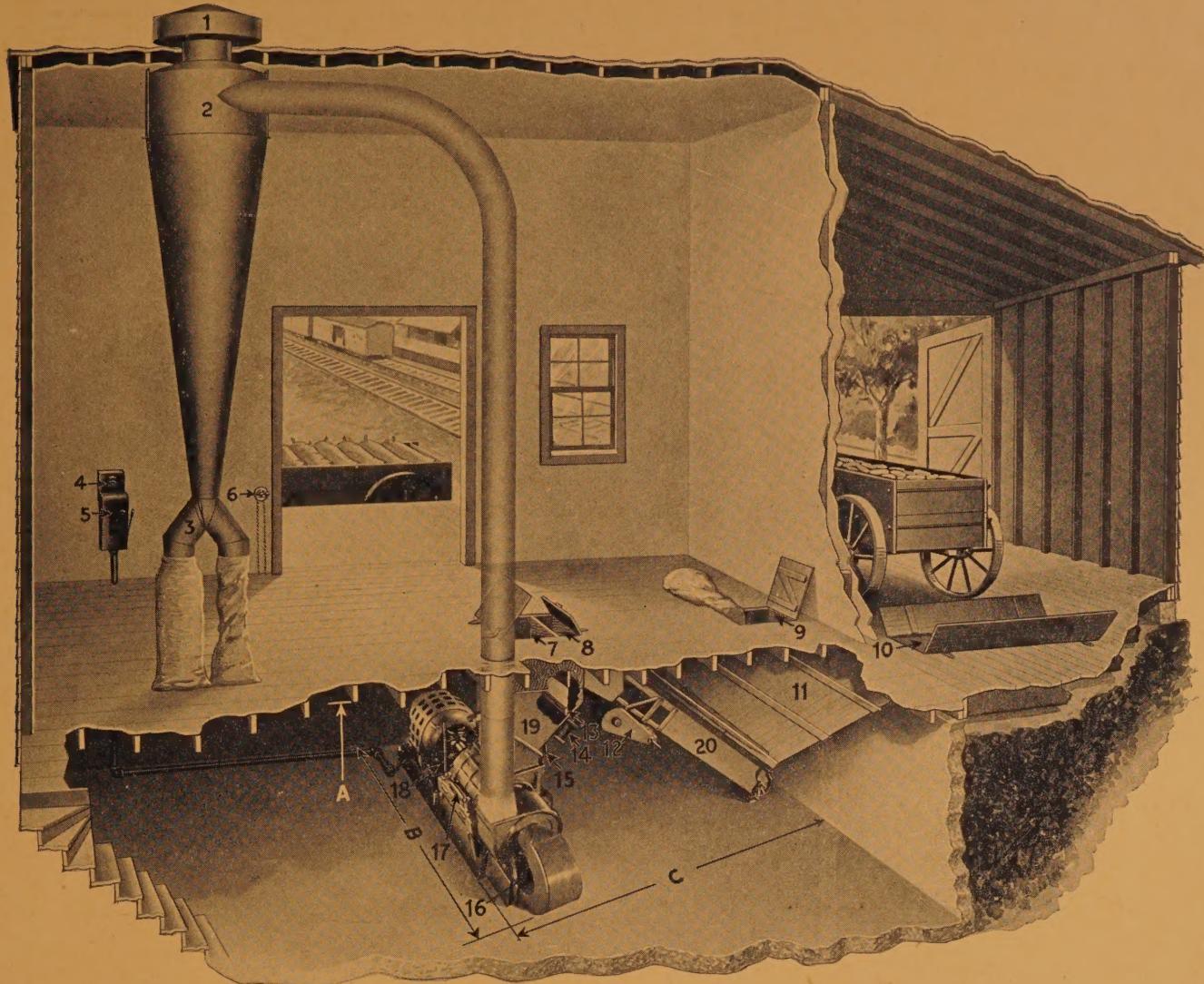
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1. Canopy to protect cyclone outlet from weather.
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A. Seven feet from floor to ceiling.

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11. Bin over feeder which may be arranged for one or two grists.
12. Variable speed drive to run feeder at any speed.
13. Hinged guard to deflect tramp metal to bottom of spout.
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A Typical Jacobson Grinder Installation

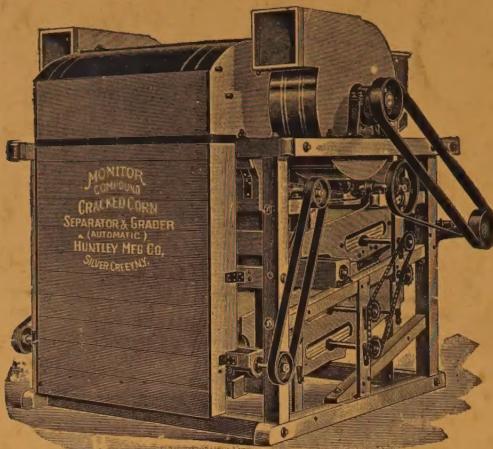
Jacobson Grinder Service starts with engineering the proper type Jacobson Grinder and equipment into your plant. Proper installation and service add much to your grinder satisfaction and grinding profits. That's why Jacobson is careful to give the super-service that the Jacobson Grinder merits.

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With a MONITOR Cracked Corn Grader, you can grade to meet the demands. We now make the machine with either four or five runs of screens. It makes all the popular sizes and wastes nothing. It saves the hulls for your Feed and delivers the flour and the meal, each by itself. In fact, it does the work as it should be done and as it must be done to be profitable. As a maker of Feed, you need it. You need the prestige that it will give you.

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